

# Multi-Residential Residue Management and Promotion & Education Campaign

## CIF Project # 895

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## Executive Summary

In February 2016, the Region of Peel began the “Recycle Right” Campaign for multi-residential properties across the entire Region. The campaign was completed over seven months with two additional months to allow for any remaining post-campaign audits. The overall goal for this campaign was to reduce Blue Box Program costs for managing recyclables from the multi-residential sector. More specifically, reducing processing costs related to residue management while adding recycling tonnes to help offset program costs. The Region set a goal of 50 per cent reduction in incorrect bags and 30 per cent reduction in overall contamination for this campaign.

In 2014, the Region of Peel piloted the Recycle Right campaign at 12 multi-residential buildings. The pilot showed favorable results as overall contamination decreased for the group of buildings from 45 per cent to 32 per cent. The amount of tied bags of recyclables decreased by 50 per cent and the overall contamination rate decreased by almost 30 per cent. Due to these positive results the Region implemented this campaign across the entire Region and secured partial funding through the Continuous Improvement Fund (CIF).

The Region of Peel services approximately 96,000 units and provides single stream recycling. Approximately 12,398 tonnes of recycling were collected in 2015. High contamination rates are not uncommon in multi-residential programs across the Province. In 2014/2015, contamination rates for recycling loads entering the Region’s Material Recovery Facility (MRF) were, on average, 35 per cent for front-end recycling collection routes and 23 per cent for cart-based recycling collection routes. It is estimated that the Region spends approximately \$167,751 in residue disposal costs on an annual basis. The campaign focused on reducing the amount of materials placed in grocery and garbage bags and also garbage found in the recycling stream, in general.

The Recycle Right campaign was implemented at each multi-residential building using a phased approach. Specific P&E materials were produced for the campaign. These materials included reusable recycling bags, door hangers with a recycling magnet, a reminder door hanger, two different size posters and foam core display boards mounted on easels for lobby displays. Other miscellaneous materials were used for the lobby display such as existing Waste Management Guides for residents and giveaway items such as pencils and key chains. The three phases of the campaign were as follows:

**Phase One:** Phase One included the initial site visit to introduce the campaign to building management and staff and gain support. Upon approval, waste staff provided door-to-door delivery of one reusable recycling bag and a door hanger with a magnet reinforcing the key messages of the campaign and providing a list of acceptable items. A date was set for the lobby display (usually the following week) and notice posters were posted to inform residents of the date and time of the lobby display.

**Phase Two:** Phase Two involved the lobby display itself. Foam core boards reinforcing the key messages were erected along with a display table with “Yes” and “No” items. Materials made from recycled products were also on display. Giveaways geared towards children were provided as well.

**Phase Three:** Phase Three included the delivery of permanent recycling posters and also door-to-door posting of reminder door hangers to thank residents for using their reusable recycling bags and reinforce the key messages once again to help sustain the correct recycling habits.

The two main monitoring and measuring methodologies used to measure the campaign included conducting pre and post waste audits and qualitative research consisting of in-person surveys with tenants in a select set of study buildings before and after the distribution of P&E materials. The campaign was implemented by collection route. One collection route was selected at a time and the campaign was carried out at each multi-residential building on the route. This allowed for well-coordinated measuring and monitoring. Routes can be isolated and more easily monitored and measured.

A total of 85 buildings (receiving front-end recycling) were selected to be audited as groups of 10, on average. This represents approximately 12 per cent of the Region's building population. The audits were structured so that a dedicated load of recyclables will be collected from two separate groups of buildings on each of the selected routes. For each route audited, one group of buildings received Phase 1 and Phase 3 P&E materials and lobby displays (Phase 2) and the other group of buildings only received the Phase 1 P&E Materials (door hanger magnet, reusable recycling bags and permanent recycling posters) and Phase 3 reminder door hangers.

A smaller group of buildings (receiving cart recycling) were selected for audits using the same methodology as detailed above. A total of 35 buildings receiving cart recycling collection were audited. Buildings were selected from two separate day's routes. Each separate day has two sub groups, one group receiving lobby displays and the other only receiving the P&E materials.

The second measuring and monitoring method involved the employment of in-person qualitative surveys. The research methodology focused on conducting in-person surveys with residents in study buildings on two occasions: before and after the delivery of the P&E materials. Six buildings receiving front-end recycling collection and four buildings receiving cart recycling collection were chosen. Half of each of the building groups received lobby displays and half did not.

The main objective of the research was to determine if the investment in hosting lobby displays in multi-residential buildings resulted in a correlative increase in desired recycling behavior. In addition, the benchmark (pre) and tracking (post) surveys were intended to assess the recall and motivational value of the campaign communication materials. In addition to the pre and post surveys, composition audits were performed for each building group to gain an understanding of how the campaign affected what residents were putting in the recycling stream.

Results from the composition audits measuring the overall campaign show that the campaign achieved a 21 per cent reduction, by weight, in the amount of materials received in incorrect bags (grocery/shopping bags and garbage bags). In addition to this, there was a 6 per cent reduction in garbage and overall contamination by non-recyclable materials. The overall contamination rate decreased from 32 per cent to slightly below 30 per cent.

Based on both the composition audits and qualitative surveys the P&E materials provided during the campaign reduced the use of grocery and garbage bags as a means of carrying recyclables to carts/bins. In surveys, almost all who responded reported a shift in their behavior to using the Recycle Right reusable bag. Those surveyed demonstrated good recall of receiving P&E materials. There are no indications that the provision of lobby displays, which were in place for three hours during one day between the pre and post surveys, impacted the residents recycling set out habits. Furthermore, the composition audits measured throughout the campaign showed that locations that received lobby



displays did not reduce their contamination as much as locations that only received the P&E materials. In addition to calculating contamination, by weight, Peel staff performed counts of grocery and garbage bags from each sample audited. Counts for garbage bags decreased for all groups audited during the campaign and for the specific in-person survey buildings. A more robust study is needed to draw more definitive conclusions about the cost benefit of providing intervention through a staffed lobby display.

## **1. Introduction**

In February 2016, the Region of Peel began the “Recycle Right” Campaign for multi-residential properties across the entire Region. The campaign was completed over seven months with two additional months to allow for any remaining post-campaign audits. The overall goal for this campaign was to reduce Blue Box Program costs for managing recyclables from the multi-residential sector. More specifically, reducing processing costs related to residue management while adding recycling tonnes to help offset program costs. The Region set a goal of 50 per cent reduction in incorrect bags and 30 per cent reduction in overall contamination for this campaign.

## **2. Background**

In 2014, Peel staff met to discuss the high levels of contamination coming from front-end recycling loads (those loads typically include multi-residential locations). It was determined that the main concerns or sources of contamination included recyclables tied in plastic grocery and garbage bags and mixed garbage. Staff selected 12 multi-residential locations to pilot test a communications campaign to see if it would be effective in reducing the largest contributors to the contamination problem.

Targeted Promotion & Education (P&E) materials were produced for the initiative which was rolled out in three major phases:

- 1) Delivery of reusable recycling bags, door hanger magnets and notice posters for lobby display
- 2) Provide lobby display to engage with residents
- 3) Deliver follow up door hanger magnet, thanking and reminding residents to continue to use their reusable bag and recycle the proper materials.

Staff conducted pre and post MRF audits from dedicated loads of amalgamated recycling from the 12 pilot locations.

Data from the composition audits showed a positive impact of the campaign. Before the campaign, the group of 12 buildings averaged (over three audits) a contamination rate of over 45 per cent. After the campaign, the 12 locations averaged a contamination rate of 32 per cent (over four post-audits).

The amount of tied bags of recyclables decreased by 50 per cent and the contamination rate overall decreased by almost 30 per cent.

Due to such positive results, Peel staff implemented this campaign across Peel’s entire building population. Ten (10) contract staff were hired to assist with another project; however, their contract included the time required to conduct the Recycle Right Campaign.

### **2.1 Community Profile**

The Region of Peel is located immediately to the east of the City of Toronto (see Figure 1). It encompasses the Cities of Mississauga and Brampton (Urban) and Town of Caledon (Rural). The Region

of Peel has a diverse population with people from many cultural backgrounds. The Region of Peel's population is approximately 1.45 million including approximately 340,000 single family households and over 96,000 multi-residential units.

**Table 1: Number of households in Peel Region (2016)**

Municipality	Population	Single Family Households	Multi Family Households	Total Households
Region of Peel	1,450,000	340,000	96,000	436,000

**Figure 1: Peel Region Location Map**



## 2.2 Waste Management System

The Region of Peel provides single stream recycling collection on a bi-weekly frequency for curbside households and multi-residential locations receive once per week collection of single stream recycling. Where necessary, due to logistical issues, some multi-residential locations receive twice per week recycling collection. Single stream recycling is taken to the Material Recovery Facility (MRF) located at the Peel Integrated Waste Management Facility for processing by the Region's contractor Canada Fibers Limited. Garbage is collected bi-weekly for curbside households and twice per week at multi-residential locations. Curbside households have pre-selected cart sizes but can use bag tags to dispose of additional waste. There are currently no garbage limits for multi-residential locations. Organics is collected weekly

from curbside households. A multi-residential organics pilot was launched in November 2016 at 20 locations and will run until the end of 2017.

The waste management system can be summarized in the table format shown below.

**Table 2: Waste Management System Overview for Peel Region (2016)**

Multi-residential Service	Service Description	Collection Provider	Processing Provider
Garbage	Twice a week	Miller Waste Systems	Internal/External
Recycling	Once a week Recycling (Single Stream)	Miller Waste Systems	Canada Fibers Limited

### 2.3 Current Waste Management Performance

The performance information can be summarized in a table format shown below.

**Table 3: Waste Management Tonnage Overview for Peel Region (2015)**

	Units	Blue Box Recycling		Total Waste Diversion		Disposal		Generation (Total)	
		rate	% of total	rate	% of total	rate	% of total	rate	%
GAP Reported	tonnes	96,448.76	19	219,343.83	44	279,256.54	56	498,600.67	100%
	Kg/hhld	221	21	503	47	558	53	1,061	100%
Single Family	tonnes	84,051.12	19	206,946.19	48	222,693.87	52	429,640.06	100%
	Kg/hhld	247	25	475	48	511	52	986	100%
Multi Family*	tonnes	12,397.64	18	12,397.64	18	56,562.67	82	68,960.31	100%
	Kg/hhld	129	18	129	18	589	82	718	100%

### 2.4 Program Challenges

The goal of this project was to reduce the percentage of non-recyclable materials that enter the Region of Peel's Material Recovery Facility from multi-residential buildings. In 2014/2015, contamination rates for recycling loads entering the MRF were on average 35 per cent for front-end recycling collection routes and 23 per cent for cart-based recycling collection routes. It was estimated that the Region spent approximately \$167,751 in residue disposal costs on an annual basis.

The campaign focused on reducing the amount of materials placed in grocery and garbage bags and also garbage found in the recycling stream in general. The campaign was piloted in 2014 and results showed a 64 per cent reduction in the use of “incorrect bags” such as grocery or garbage bags. Due to the favourable results from the pilot, staff decided to expand the campaign to a Region-wide initiative to lower residue disposal costs and increase the capture of recyclable materials. This outcome would benefit both the Region and the residents by reducing program costs and conserving more resources.

### **3. Approach**

#### **3.1 Set Up and Implementation**

##### **3.1.1 Description**

A lot of effort went into pre-planning the implementation of the Recycle Right Campaign. The campaign methodology was already determined to be the same as the pilot completed two years prior to this project. Two major components that needed to be completed included: 1) Design and delivery of Promotion & Education (P&E) Material and 2) Campaign Schedule. Details of these two components are as follows:

##### **1) P&E Material**

The design and delivery of all P&E Materials was organized well in advance to allow enough lead time for the design, printing/production and delivery of materials. There was less time required for design as the Region used the same P&E Materials that were used in the pilot. Printing/ production and delivery of materials varied. For example, reusable recycling bags were ordered but they needed a two-month lead time to be delivered from the order date as they were being manufactured in China. Print materials varied as basic door hangers and posters were printed and delivered relatively quickly (one to two weeks) compared to the door hanger/magnet combination (three weeks). Due to the magnitude of the campaign, P&E materials had to be ordered in smaller quantities over time due to storage limitations. Please refer to **Appendix 1** for a list and illustrations of all P&E Materials used.

##### **2) Campaign Schedule**

A campaign schedule was created based on 10 staff and the phased approach of the campaign. **Appendix 2** includes two schedules; one schedule details each week of the campaign including information on the recycling route and phase of the campaign that is being implemented in that particular week. The other schedule details the timing of all the lobby displays and is colour-coded to distinguish buildings that did not receive lobby displays.

The campaign schedule was very intensive as each team (five teams of two) were responsible for carrying out different phases of the campaign at different buildings, as seen in the schedule. For example, they had to staff lobby displays, deliver door hangers/magnets and recycling bags and reminder door hangers to separate buildings according to how they

worked their way through their designated buildings based on the recycling collection routes.

Other equipment was already at the disposal of staff as they had already been retained for a separate project. Other equipment includes fleet vehicles, cell phones and miscellaneous office supplies.

Each individual building experienced the campaign using a phased approach employing key messages as described as follows:

**Key Messages:**

In Unit Preparation	Recyclables Become Contamination	Acceptable Items
Use your Region of Peel free reusable bag to take your loose acceptable recyclable items to your building's recycling bin.	Putting a tied plastic bag filled with recyclable items into the recycling bin sends the items inside to landfill as garbage.	Get to know if your items are or aren't acceptable before putting them into your building's recycling bin.

**Phase One:**

Phase One included the initial site visit to introduce the campaign to building management and staff and gain support. Upon approval, waste staff provided door-to-door delivery of one reusable recycling bag and a door hanger with a magnet reinforcing the key messages of the campaign and providing a list of acceptable items. A date was set for the lobby display (usually the following week) and notice posters were posted to inform residents of the date and time of the lobby display.

**Tactics:**

- 8 ½ x 11 and 11 x 17 poster
- Acceptable items door hanger/magnet combo
- Letter to property management
- Digital display screens
- Building e-newsletter

**Phase Two:**

Phase Two involved the lobby display itself. Foam core boards reinforcing the key messages were erected along with a display table with "Yes" and "No" items. Materials made from recycled products were also on display. Giveaways geared towards children were provided as well.

Tactics:

- Lobby Display
- Lobby foam core boards (4) – supporting lobby displays
- Acceptable and unacceptable items displayed
- Giveaways

### Phase Three

Phase Three included the delivery of permanent recycling posters and also door-to-door posting of reminder door hangers to thank residents for using their reusable recycling bags and re-inforce the key messages once again to help sustain the correct recycling habits.

Tactics:

- 8 ½ x 11 and 11 x 17 permanent posters
- Additional door hanger

#### 3.1.2 Set Up and Implementation Challenges and Solutions

The clear majority of challenges during the set up and implementation of the Recycle Right Campaign involved the scheduling of deliveries, lobby displays and waste audits. As may occur with any site visits at multi-residential locations, staff were required to contact and gain access to each property to distribute the P&E Materials. There were some occasions when teams were unable to reach a building contact and/or gain access to a property so they were forced to follow up and return to the location. Certain locations did not approve of the door-to-door delivery of the P&E Materials so staff left a supply with the building to distribute. This required staff to check in periodically to ensure the materials were, in fact, being distributed.

#### Summary of Set Up and Implementation Challenges

Key Set Up Problems and Implementation Challenges	Solutions Implemented	Lessons Learned
Access to multi-residential units	Arrange an alternate time to visit or leave materials with building management and check back to ensure distribution of P&E materials	Staff has to anticipate these challenges and accommodate the additional time required for re-visiting locations within their schedules
Audit Date Changes	Audit dates were rescheduled to an alternate date based on what worked best	When creating an audit schedule, ensure there are available dates that can be used as backups should audit dates need to be rescheduled

In addition, the schedule for the waste audits had to be adjusted periodically to accommodate change requests from MRF audit staff due to changes in staff audit room availability or overall MRF facility operational issues. These challenges were generally overcome by finding another time in the schedule to complete each task. For example, audit dates were pushed forward to an appropriate time.

## **3.2 Monitoring and Measurement Methodology**

### **3.2.1 Overview**

The two main monitoring and measuring methodologies used to measure the campaign included conducting pre and post waste audits and qualitative research consisting of in-person surveys with tenants in a select set of study buildings before and after the distribution of P&E materials.

The campaign was implemented by collection route. One collection route was selected at a time and the campaign was carried out at each multi-residential building on the route. This allowed for well-coordinated measuring and monitoring. Routes can be isolated and more easily monitored and measured.

The campaign began by focusing on the front-end recycling routes as these have been historically the source of higher contamination rates. After the front-end routes were completed, the campaign was rolled out at buildings that receive 95-gallon cart collection. In total, there are 10 front-end collection routes. Four of these routes were chosen for the measuring and monitoring plan. In addition, two collection routes were chosen to measure and monitor the campaign at cart-based recycling collection locations.

The Region provides collection to townhouse complexes that have communal bin collection as part of the multi-residential routes; however, these locations were out of scope for the comprehensive Recycle Right Campaign. Region staff still delivered reusable recycling bags and P&E to these locations when time allowed, but the focus of the campaign was on multi-residential buildings.

### **3.2.2 Waste Audits (including scheduling, sampling process, sorting process)**

A total of 85 buildings (receiving front-end recycling) were selected to be audited as groups of 10, on average. This represents approximately 12 per cent of the Region's building population. The audits were structured so that a dedicated load of recyclables will be collected from two separate groups of buildings on each of the selected routes. For each route audited, one group of buildings received Phase 1 and Phase 3 P&E materials and lobby displays (Phase 2) and the other group of buildings only received the Phase 1 P&E Materials (door hanger magnet, reusable recycling bags and permanent recycling posters) and Phase 3 reminder door hangers. **Appendix 2** provides a schedule of the lobby displays. Addresses shaded in green received P&E, lobby displays and composition audits while addresses shaded in purple only received P&E and composition audits. This helped determine if the lobby displays had a beneficial impact as



opposed to just delivering the P&E. Each load was taken to the Region's MRF and the load was dumped and coned and quartered to obtain an approximate 100 kg sample for sorting.

**Appendix 3** provides the audit schedule showing the different building groups and timing of the dedicated audits. The audits for each building group were conducted approximately one month apart over the campaign from the first pre-campaign audit to the third and final post-campaign audit. The audit methodology and sorting categories are contained in **Appendix 4**.

A smaller group of buildings (receiving cart recycling) were selected for audits using the same methodology as detailed above. A total of 35 buildings receiving cart recycling collection were audited. Buildings were selected from two separate day's routes. Each separate day has two sub groups, one group receiving lobby displays and the other only receiving the P&E materials.

Dedicated composition audits for multiple groups of buildings throughout the campaign provided an excellent source of data to show the impact the campaign has had on the quality of recyclable materials collected at these locations. Data was not skewed by other sources of recycling originating from schools and other institutional locations which are typically part of the same route as multi-residential locations.

In addition to composition audits, the Region procured the services of a communication consultant, Barbara McConnell, President of McConnell Weaver Strategic Communications to develop and implement a plan to conduct qualitative research. The intention of the research was to gather information on multi-residential residents' behaviours related to recycling and their recollection of specific P&E materials including those materials used during the "Recycle Right" Campaign. The qualitative research was originally outside of the scope of this project however partial CIF funding was added for this work. The results helped inform how the P&E materials provided during the Recycle Right campaign were received and how effective they were.

### **3.2.3 Qualitative Research (including selecting study buildings, methodology and objectives)**

Barbara McConnell has extensive experience in designing and delivering communication and P&E projects that focus on waste resources management. One of her areas of expertise is applying qualitative and quantitative research techniques to P&E campaign execution to generate monitoring and measurement insights and metrics. The Region, in agreement with the Continuous Improvement Fund (CIF), contracted with McConnell to develop a qualitative research component in the multi-residential (MR) Recycle Right campaign. Of specific interest as an outcome of this research was the cost-benefit of including one-on-one interaction with some MR residents through the presence of a staffed lobby display.

McConnell has prepared a separate report describing the research process and results which are included in this overall report (see **Appendix 5**).

The research methodology focused on conducting in-person surveys with residents in study buildings on two occasions: before and after the delivery of the P&E materials.

As noted above, the P&E materials comprised:

- Reusable recycling bag describing the three easy steps to proper recycling on one side and displaying images of the acceptable materials on the opposite side
- Door hanger with an attached magnet displaying acceptable materials
- Reminder door hanger (delivered two weeks after the bag/magnet combination)

### Selecting Study Buildings

Peel selected a group of MR buildings, half of which offered recycling service using a cart-based system and half using a front-end bin system.

The original intention was to select six buildings in each category of recycling service for a total of 12. Each category of six were sub-divided: three buildings would receive P&E materials only and three would receive the P&E materials plus the enhanced intervention of the lobby display.

However, due to scheduling difficulties, it was possible to identify only four buildings in the cart-based category that were available to participate in the research.

**Table 4: Number of Planned and Actual Buildings in Qualitative Research Study**

Type of Recycling	Originally Planned Number of Buildings	Intervention	Planned Number of Buildings Secured for Study	Actual Number of Buildings Secured for Study
Carts	6	No lobby display	3	2
		Lobby display	3	2
Front End Bins	6	No lobby display	3	3
		Lobby display	3	3

To establish a baseline understanding of the buildings that did participate in the study, the research strategy called for the Recycle Right team to conduct an inventory of each building. The team visited each site and completed a form designed to collect data that provided insights into the physical characteristics of the building and its recycling system, as well as the demography of its residents. (See Appendix 5-A – Building Inventory Form, in **Appendix 5** report). A summary of the inventory information by study building is included in the accompanying report in **Appendix 5: Qualitative Research Project Report** in **Table 5-4: CIF/Peel Multi-Residential Qualitative Research Report -- Building Inventory Data**, on page 8. This information aided the survey analysis process.

## Research Methodology

McConnell developed a project implementation workplan establishing the timetable for each component in the qualitative research project. This workplan conformed to the schedule already established for the pre and post waste composition audits that Peel had previously set up. (The workplan is included as **Table 5-3: CIF/Region of Peel Multi-Residential Research Project – Workplan**, on page 7 in the accompanying research report [Appendix 5]).

The components of the research project included:

1. **Building Inventory** – visit each of the study buildings to complete a building inventory. The Peel team undertook this inventory of each building using a pre-set form (see Appendix 5-A in the research report in Appendix 5).
2. **Qualitative Research Resident Survey: Pre-P&E Campaign** – visit each building in the study group at a time of high traffic flow (determined by the building inventory) prior to the delivery of the P&E communication materials. Using a pre-set questionnaire (see Appendix 5-B in the accompanying research report), interview residents about their recycling knowledge, recall of recycling educational materials and recycling behaviour. The in-person survey had a version for respondents who said they recycled and an abridged version for those who said they did not recycle.
3. **Qualitative Research Resident Survey: Post-P&E Campaign** – visit each building in the study group at a time of high traffic flow following the delivery of the P&E communication materials, including the reminder card. Using a pre-set questionnaire (see Appendix 5-C in the research report), interview residents about their recycling knowledge, recall of P&E communication educational materials and recycling behaviour. The in-person survey had a version for respondents who said they recycled and an abridged version for those who said they did not recycle.
4. **Participation Incentive** – to encourage building residents to participate in the survey, the teams offered an incentive (either a pencil or a key chain) at the time of the pre and post interview.
5. **Alternative Option** – if a resident indicated they did not have time to participate in a survey, the Peel representative invited them to complete the survey at a time more convenient to them on-line or by telephoning a call-in number and answering the questions in sequence over the phone. To aid and prompt the potential respondent, these residents were given a postcard containing the pertinent information to connect online or by phone. A version of the pre and post questionnaires was set up on a commercially available online survey instrument; however, no one in the study buildings chose to use this alternative option.

### Qualitative Research Objectives

The main objective of the research was to determine if the investment in hosting lobby displays in multi-residential buildings resulted in a correlative increase in desired recycling behaviour. In addition, the benchmark (pre) and tracking (post) surveys were intended to assess the recall and motivational value of the campaign communications materials. The qualitative research objectives are outlined in the table below.

Objectives	Materials	Recall of P&E	Use of Improper Bags	Adopting Proper Behaviour
Impact of Lobby Displays vs. No Lobby Displays	On awareness/ recall of materials to be recycled	On recall of seeing/receiving P&E materials	On avoiding use of grocery and garbage bags as a means of carrying recyclables to the bins	On adopting use of reusable Recycle Right bags

The research plan called for a minimum of 20 surveys to be completed in each study building; however, the team was unable to meet this target in all but one of the 10 buildings. It is possible that conducting the surveys during the summer may have had an impact on the team's ability to achieve the target. More pertinent was that the tight scheduling did not allow for the teams to return to the buildings until the target number of surveys were completed. (See the number of completed surveys in **Table 5-5: Qualitative Research Surveys – Completed Responses** on page 9 of the accompanying research report.)

### 3.2.4 Monitoring Challenges, Limitations and Solutions

Throughout the campaign some challenges and limitations arose from the monitoring and measuring methodologies. As indicated previously, the audit schedule had to periodically be adjusted to accommodate the schedule of the MRF staff and facility. This was overcome, by re-scheduling the audits on a suitable alternate date. The original schedule had sufficient open dates to allow for this and this is important to consider when developing an audit schedule. Alternate dates may have to be scheduled, so the audit schedule should be flexible enough to accommodate moving the audit days around as necessary.

The waste audits themselves are an estimation of the quality of material being collected. There are inherent limitations when using waste audit data as some audit days may be skewed due to an abnormally high weight for certain materials (e.g., renovation/construction material, large non-recyclables). These may increase the percentage of the non-recyclable portion of the sample. To minimize this limitation and work with the constraints of the campaign schedule, two pre audits were conducted and three post audits were conducted to obtain audit data over an extended period.

### Qualitative Research Challenges and Limitations

The qualitative research project wasn't initiated until near the end of the fourth month (May) of the seven-month campaign (February to August). This presented some challenges and limitation in the research planning and implementation component. Not all the challenges could be mitigated and, as a result, the amount and quality of the data collected was less than optimal, and this impaired the analysis process.

- Having four buildings in the cart-based recycling category at the start of the project instead of the planned six resulted in a diminished range of input data from the cart-based program which impacted the data analysis process and the capacity to draw out representative observations.
- The number of pre and post survey questionnaires completed throughout almost all the buildings fell far short of the target of 20 for each building. This lack of robust respondent information, particularly from cart-based programs, limited the comparative analysis process. It certainly impacted the ability to make numerical observations about the cost-benefit of providing P& E intervention through a staffed lobby display.
- The project start-up lacked in-depth building intelligence, e.g., demographics, access to recycling area, exposure to pre-campaign recycling educational information, etc. This type of data is necessary to aid in the selection of multi-residential properties that are characteristically well matched. Comparing apples to apples is important when conducting A/B studies and analysis. The issue was addressed at the start of the research project by dispatching the Peel team to conduct on-site reviews of each study building using a pre-set inventory form (see Appendix 5-A in the research report).
- The quality of the analysis depends on the quality of the information collected through the survey interviews with residents. Training the team of interviewers to interact with respondents in a positive way and ensuring they understand the importance of completing the questionnaire fully and properly is imperative in the early implementation stages.
- Half of the qualitative research work, specifically the post survey, was conducted during July/August when the availability of potential respondents may have been impacted by vacations. This challenge was exacerbated by tight scheduling due to a hard stop at the end of August which did not allow for team members to return to buildings to acquire the required number of completed surveys.

## **4. Project Results and Analysis**

### **4.1 Project Results**

The results of the project were measured using pre and post waste audit data to determine how the composition of the recycling stream changed after the implementation of the campaign. Qualitative surveys were also conducted to determine what effect the campaign had on residents' perception and awareness of the recycling program. This section will summarize the results from the audits and surveys.

#### **4.1.1 Results from Waste Audits**

As indicated in Section 3, waste audits were scheduled on inbound recyclables before and after the implementation of the campaign from selected building groups (with and without lobby displays). Table 5 summarizes the overall results of the percent reduction of contamination for target materials:

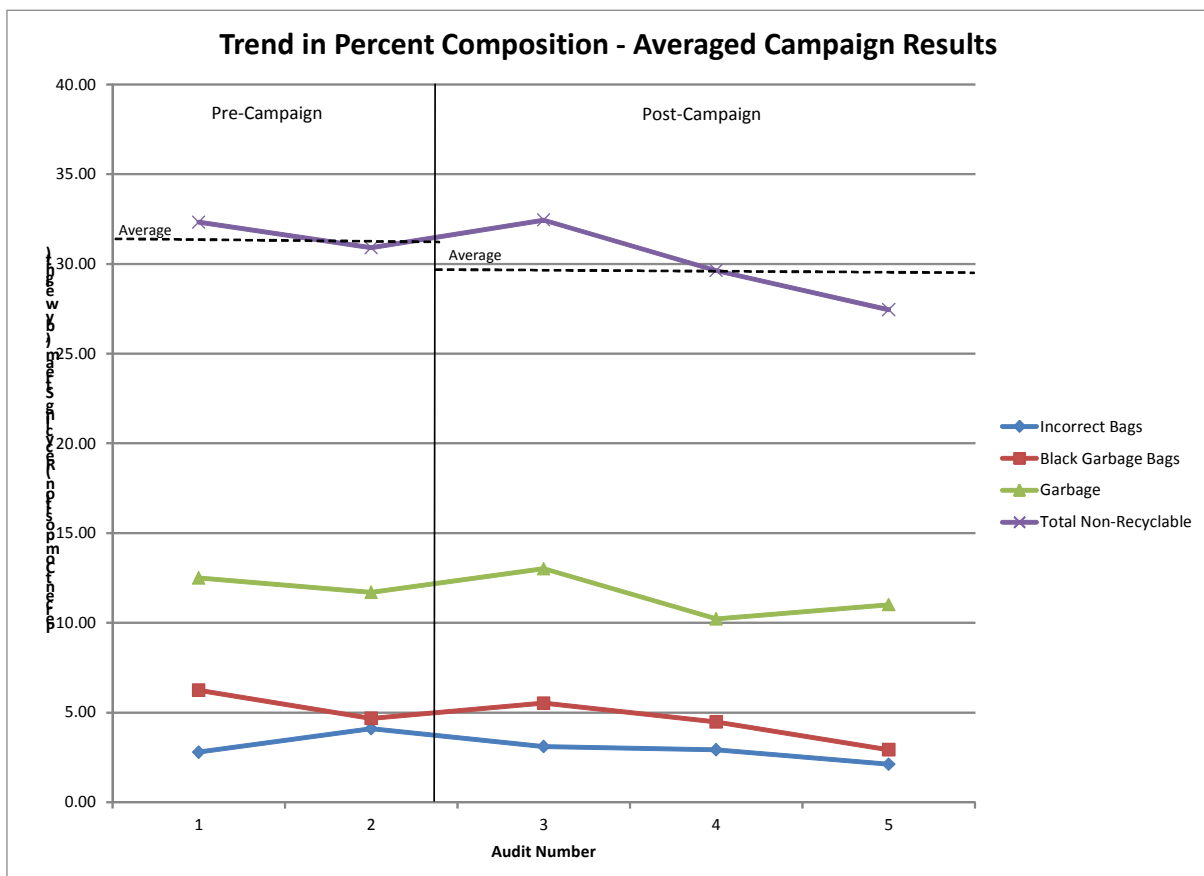
**Table 5 – Average Percent Composition Reduction Results**

Material Category	Percent Reduction, by weight
Incorrect Bags	21%
Black Garbage Bags	21%
Garbage	6%
Total Non-Recyclable	6%

Overall the campaign achieved a 21 per cent reduction, by weight, in the amount of materials received in incorrect bags (defined as grocery/shopping bags) and black garbage bags. In addition to this, there was a 6 per cent reduction in garbage and overall contamination by non-recyclable materials. The overall contamination rate decreased from 32 per cent to slightly below 30 per cent.

Figure 2 illustrates the trends in percent composition of the aforementioned target materials:

**Figure 2: Trend in Percent Composition – Averaged Campaign Results**



Results of the Recycle Right Campaign were also segregated between building groups that received lobby displays and building groups that only received P&E materials. Table 6 summarizes the overall results of the percent reduction of contamination for target materials in the non-lobby display groups:

**Table 6 – Non-lobby Display Group Results**

Material Category	Percent Reduction, by weight
Incorrect Bags	33%
Black Garbage Bags	21%
Garbage	23%
Total Non-Recyclable	15%

Table 7 summarizes the overall results of the percent reduction/increase of contamination for target materials in the lobby display groups:

**Table 7 – Lobby Display Group Results**

Material Category	Percent Reduction/Increase, by weight
Incorrect Bags	10%
Black Garbage Bags	21%
Garbage	18% (Increase)
Total Non-Recyclable	5% (Increase)

Curiously, the non-lobby display groups showed a greater reduction in contamination of the target materials. These results are counterintuitive and will be discussed further in Section 4.2 Analysis of Results.

Figures 3 and 4, show percent composition trends for non-lobby display and lobby display groups, respectively. There is a clear downward trend in all target material categories in the non-lobby display group. By comparison, the lobby display group exhibits a slight increase in the total non-recyclable content and garbage in the recycling stream.

Figure 3: Trend in Percent Composition – Non-Lobby Display Audit Groups

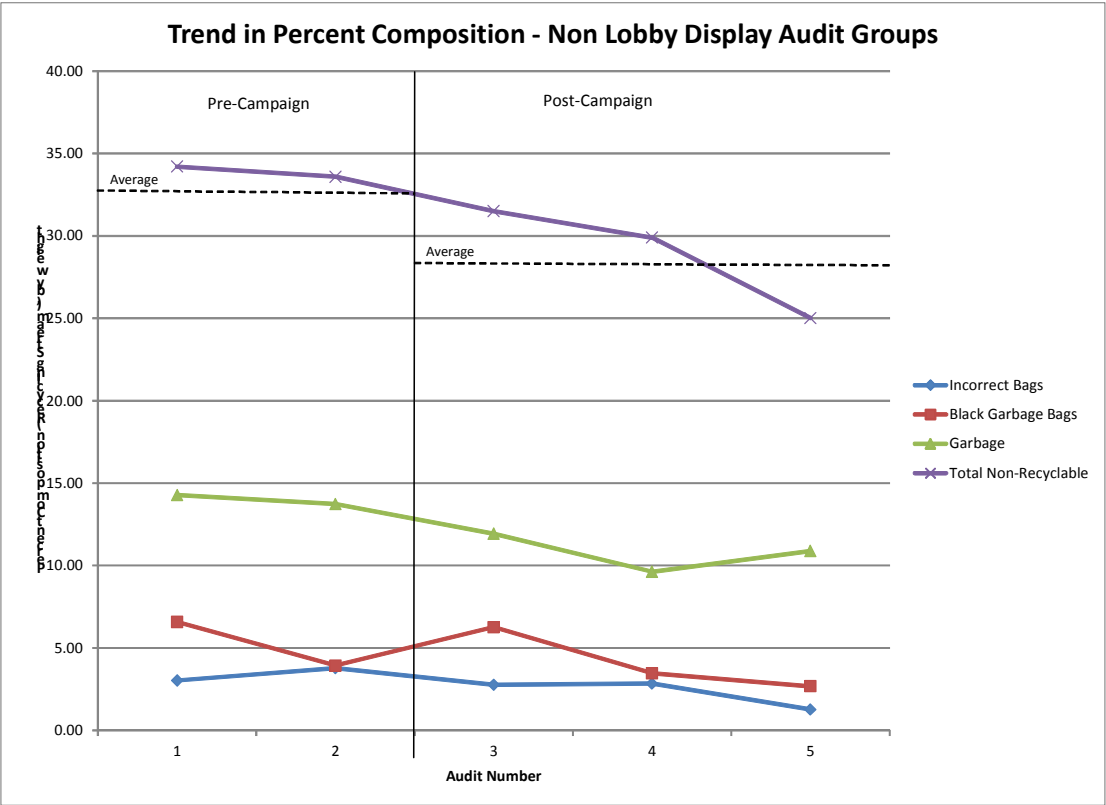
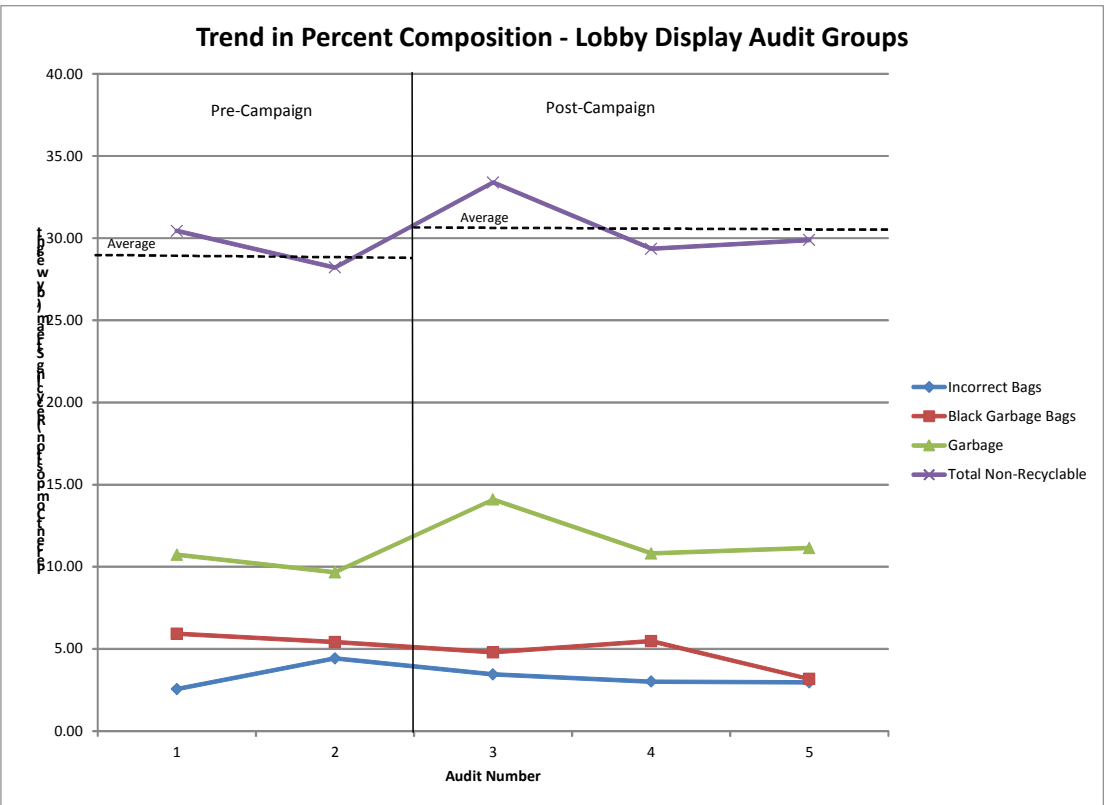


Figure 4: Trend in Percent Composition – Lobby Display Audit Groups

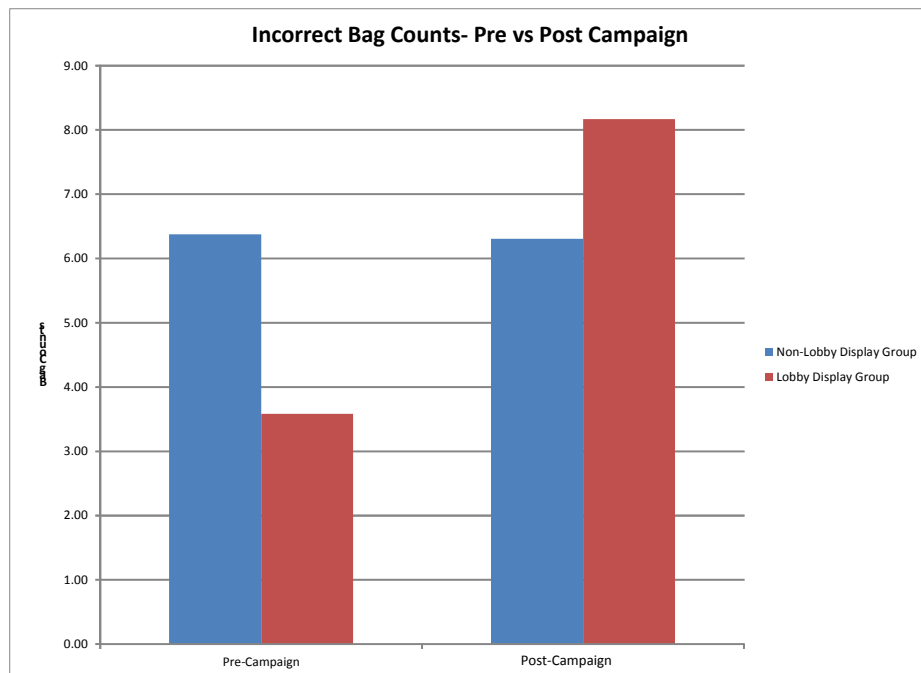




In addition to quantifying materials placed in incorrect bags and black garbage bags by weight, audit staff also performed bag counts for these target materials. This was to help determine how the material composition in the recycling stream has changed from a volume perspective.

Figures 5 and 6 illustrate the bag counts for material placed in incorrect bags and black garbage bags, before and after the Recycle Right Campaign:

**Figure 5: Incorrect Bag Counts – Pre vs Post Campaign**



**Figure 6: Black Garbage Bag Counts – Pre vs Post Campaign**

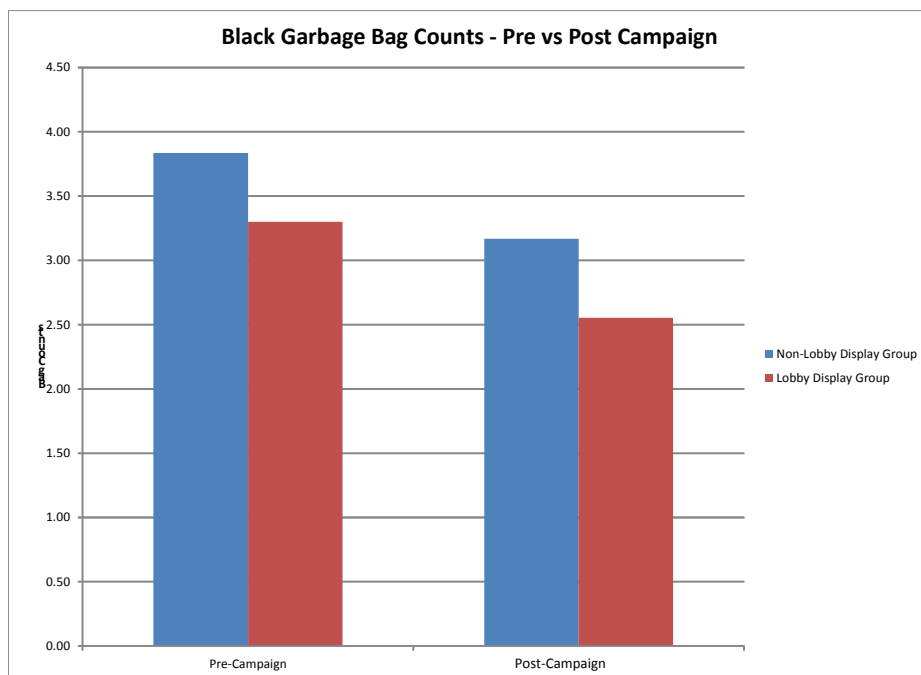


Figure 5 shows how the number of incorrect bags substantially increased after the Recycling Right Campaign in the lobby display group and only slightly decreased in the non-lobby display group.

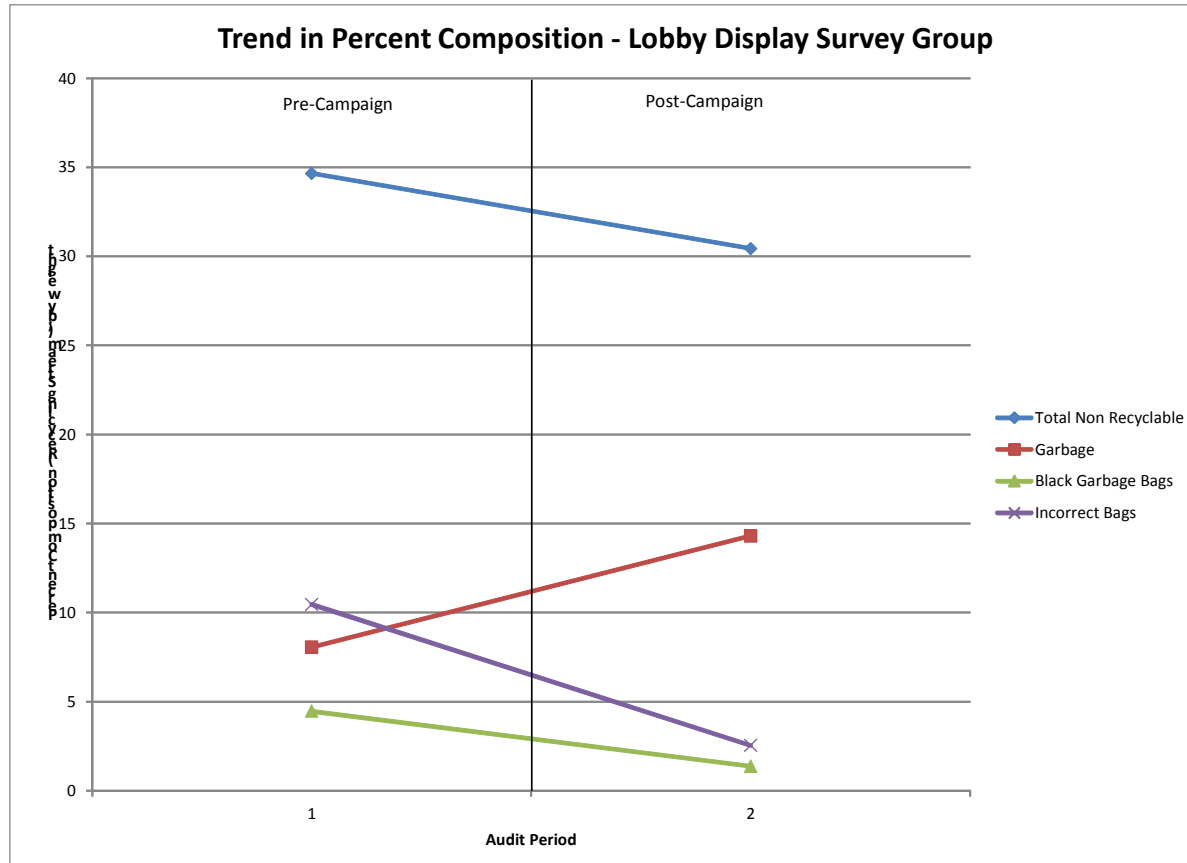
In Figure 6, it can be seen that the count of black garbage bags decreased for both non-lobby display and lobby display groups.

#### 4.1.2 Waste Audit Results in Qualitative Research Study Buildings

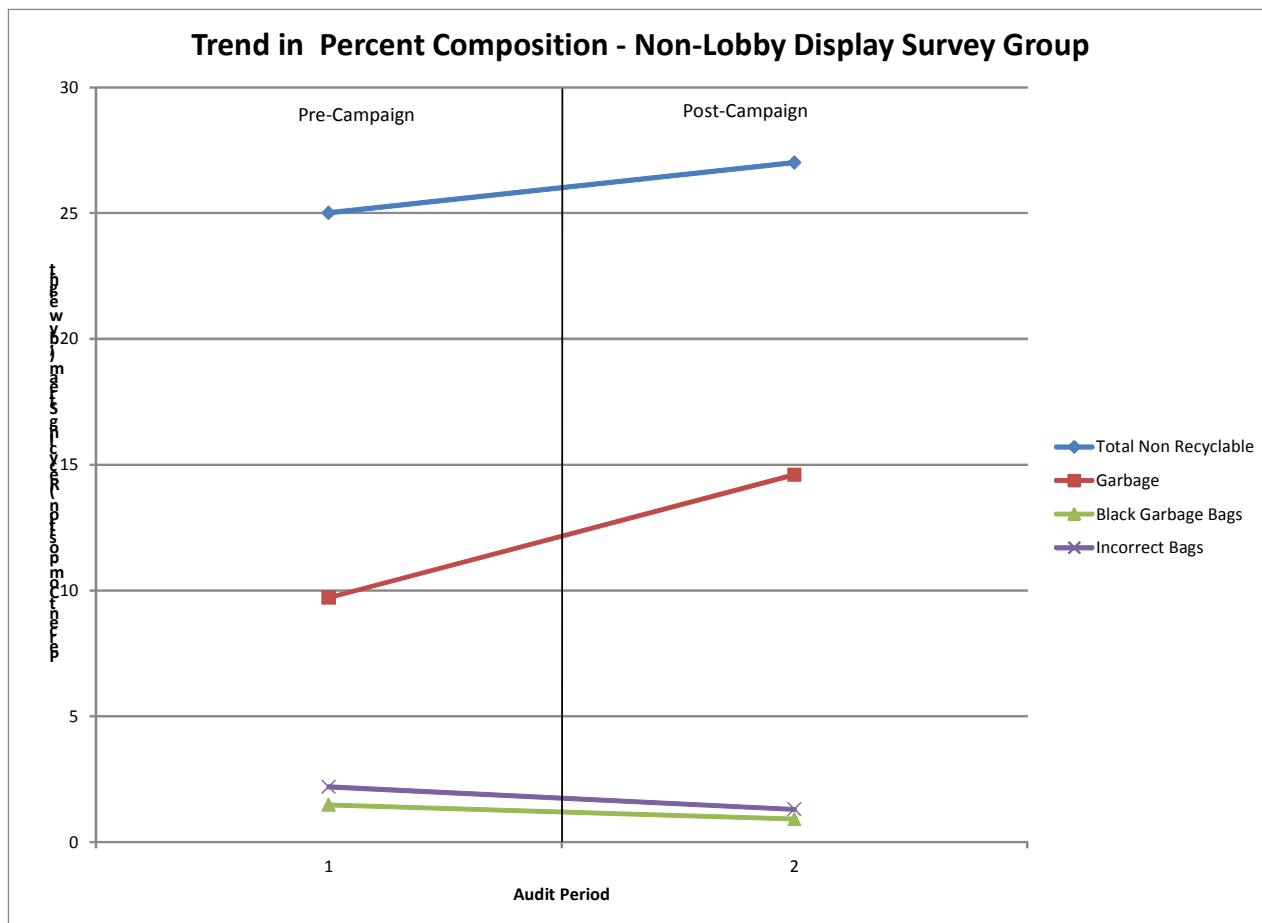
Similar to how the Recycle Right Campaign was measured through pre and post waste audits; the same approach was taken with the building groups that received the qualitative surveys. Due to time and schedule constraints, only one pre and one post audit was conducted for each building group. Six (6) buildings receiving front-end recycling collection were split evenly where three of the six buildings received a lobby display and the other three buildings did not. An additional 4 buildings were selected, which receive cart recycling collection. Again, this group was split evenly, where two of the four received a lobby display and the other two did not. For the purposes of this report the results for all groups were averaged however audit results for the lobby display and non-lobby display groups were kept distinct.

Figures 7 and 8 below show the audit results for the Lobby Display and Non-Lobby Display building groups, respectively:

**Figure 7: Trend in Percent Composition – Lobby Display Survey Group**



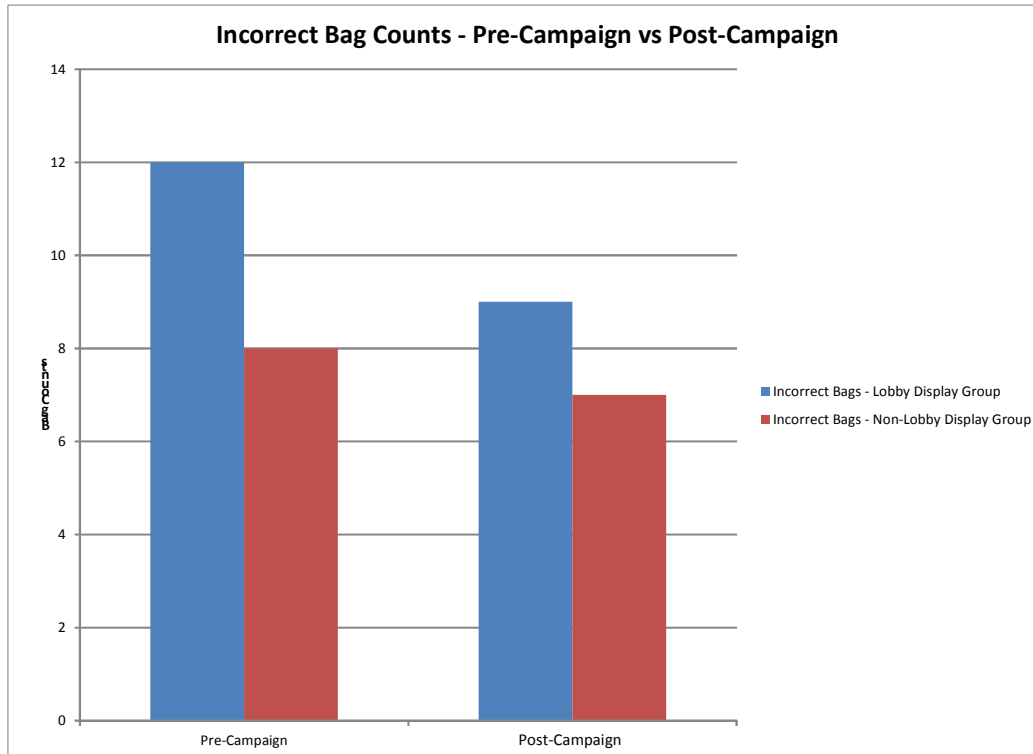
**Figure 8: Trend in Percent Composition – Non-Lobby Display Survey Group**



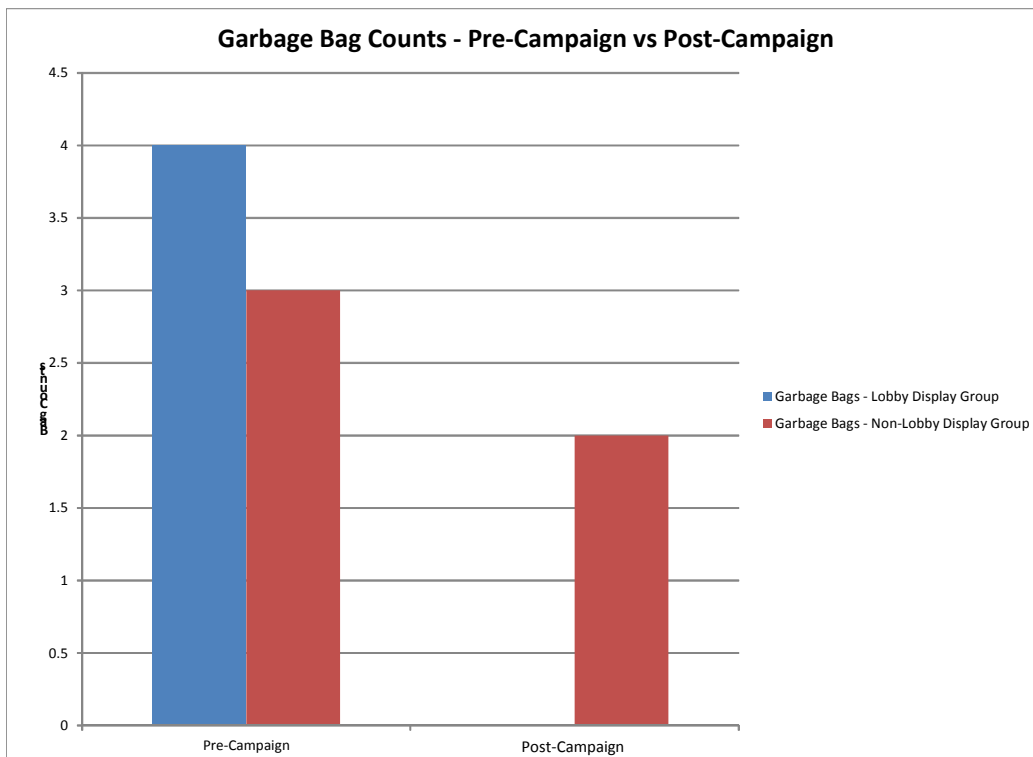
The lobby display group appears to have reduced their level of contamination and use of tied grocery and garbage bags to a much greater extent than the non-lobby display group. The non-lobby display group experienced an increase in the non-recyclable content and garbage. This data set is limited and any concrete conclusions are not possible.

In addition to the composition data, audit staff also performed a count of incorrect bags and garbage bags. Figures 9 and 10 show the results of each, respectively. In both cases, the number of observed incorrect bags and garbage bags decrease after the campaign. More significantly the lobby display group showed the greatest decrease in garbage bags going from 4 bags observed in the pre-campaign audit to 0 garbage bags observed on the post-campaign audit. It is suggested that more pre and post audits are conducted to provide more confidence in the data and confirm trends over time.

**Figure 9: Incorrect Bag Counts – Pre vs Post Campaign**



**Figure 10: Garbage Bag Counts – Pre-Campaign vs Post Campaign**



#### 4.1.3 Summary of Results of the Qualitative Research Survey Analysis

An analysis of the results of the surveys conducted before and after the delivery of the P&E materials and the presence of the staffed lobby display in the designated buildings is described in the accompanying qualitative research report (Appendix 5). A summary of the analysis observations for both the cart-based and the front-end bin categories is included here.

1. It would appear the arrival of the new Recycle Right P&E materials did not affect survey respondents' recall of the range of materials they regularly recycled. This was the case across all categories and sub-categories, so there was no indication of differences among respondents in the cart/bin categories or the lobby display/no lobby display sub-categories. The recyclables named remained consistent in both type and number in the benchmark (pre) and the tracking (post) surveys.
2. The arrival of the Recycle Right P&E materials did have a positive impact on the reported use of grocery or garbage bags as a means of carrying recyclables to the carts/bins. In the pre survey, most respondents in all categories said they used grocery or garbage bags to carry recyclables to the carts/bins. In the post survey, almost all who responded to the question reported a shift in their behaviour to using the Recycle Right reusable bag. This reported behaviour trends appears to be reflected in the audit results, as shown in Figure 9.
3. In the post survey, both the lobby display and no lobby display respondents in both cart and bin categories demonstrated a good, unaided and aided recall of receiving the P&E materials. While recall of the Recycle Right branding was low across the categories and sub-categories, recall of the specific materials was quite high. The reusable bag and the magnet were remembered most often, with the reminder card coming in third.
4. Respondents agreed the information contained on the recycling reusable bag was clear and helpful. This was almost universal among both cart/bin categories and the lobby display and no lobby display sub-categories.
5. When it came to deciding if the reusable bag helped respondents recycle more, in the cart category, the lobby display group thought they were recycling "about the same" but half of the no lobby group respondents said they were recycling more material. In the front-end bin category, most of the respondents in the lobby display sub-category agreed they were recycling more while about half of the no lobby display group in the bin category said they were recycling more. **Note:** since the number of participants in both the cart and bin-based lobby display sector was very low, the observations for that sector should not be taken as representative.
6. In the cart-based buildings, a couple of respondents in the lobby display sub-category recalled seeing a lobby display and one person said they stopped to chat. In the front-end bin buildings, about half (again, this was a small number) said they recalled the lobby display and about half of them stopped to chat.

## Summary of Survey Results – Lobby Display vs. No Lobby Display in Cart-based and Front-End Bin Buildings

- The lack of robust survey information resulting from having two instead of three buildings each in the cart-based lobby display/no lobby display sub-category coupled with the low number of completed surveys in this sector and some other sectors impacted the ability to make representative observations about the cost-benefit of providing intervention through a staffed lobby display.
- Based on the results of the qualitative research (though mindful of its limitations), there are no indications that the presence of the lobby display, which was in place for three hours during one day between the pre and post surveys impacted the reported behaviour of the lobby display group in either the cart or the bin categories.
- Clearly the strategy of providing communication materials that pointed the way to proper recycling was welcomed and remembered across all categories. There is a strong indication stemming from the research that the P&E materials succeeded in capturing MR residents' attention; that they responded positively to the call to action by changing their improper behaviour and adopting the desired behaviour; and that a significant number of the respondents claimed they were prompted to recycle more.

## 4.2 Analysis of Results

The goal for this campaign was to reduce Blue Box Program costs for managing recyclables from the multi-residential sector. More specifically, reducing processing costs related to residue management while adding recycling tonnes to help offset program costs. The Region set a goal of 50 per cent reduction in incorrect bags and 30 per cent reduction in overall contamination for this campaign. Table 8 below further summarizes how the campaign has impacted tonnages and residue management costs:

**Table 8:** Summary of Campaign Impacts – Tonnages and Residue Costs

<b>Total Multi-res recycling tonnes managed: 13,000</b>			
• <b>Tonnages</b>	<b>Pre Campaign</b>	<b>Post-Campaign</b>	<b>Reduction</b>
Tied Bags	1,000 (8%)	800 (6%)	200
• <b>Residue Costs</b>	<b>Pre Campaign</b>	<b>Post-Campaign</b>	<b>Reduction</b>
	\$168,000	\$154,000	\$14,000
• <i>Residue Cost Reduction Goal (based on 50% contamination reduction):</i>			<i>\$72,000</i>

Table 8 shows how the campaign may have impacted the multi-residential tonnage when extrapolated. The initial goal of reducing contamination would have had the potential to reduce program costs by

\$72,000. The overall results were well below the goal resulting in minimal projected cost savings of \$14,000. Some more positive reductions were experienced with the use of grocery and garbage bags as these target materials were reduced by 21 per cent, by weight.

To determine the impact of the campaign based on the volume of grocery and garbage bags, the waste audit team was asked to count all the grocery and garbage bags that were part of the sorted audit sample. It was determined that the volume of incorrect bags (grocery and shopping) bags actually increased by 45 per cent while the volume of garbage bags decreased by 20 per cent. Comparisons between groups are illustrated in Figures 5 and 6 in Section 4.1. When the material recovery facility receives garbage bags on the sort line this is problematic and they have to be removed in the pre-sort stage as the contents are not visible. If there is a large amount of garbage bags entering the sorting line this can prompt the line to be stopped, thereby affecting processing efficiency. Also, as staff physically remove the bags there is a health and safety concern as there is uncertainty as to what each garbage bag contains.

Figure 2 in Section 4.1 shows the trends in percent composition in the recycling stream of targeted materials before and after the Recycle Right Campaign. The graph shows decreasing trends for all the targeted materials. When comparing lobby display building groups to non-lobby display building groups, the results show a disparity between the two groups. This disparity is apparent when comparing Figures 3 and 4. In Figure 3, the non-lobby display group shows more substantial decreases for targeted materials when compared to the lobby display groups shown in Figure 4, which actually shows a slight increase in non-recyclable content in the recycling stream.

These results are somewhat puzzling, however, this provides project managers with some data on what impact lobby displays may have on campaigns. Table 9 provides some additional metrics from the lobby displays and P&E Distribution during the campaign.

**Table 9: Lobby Display & P&E Distribution Summary**

<b>Metric</b>	<b>Totals</b>
Total Number of Lobby Displays	<b>417</b>
Total Number of Properties that Received Reuseable Bags	<b>635</b>
Total Lobby display traffic #'s	<b>21311</b>
Total Number of people engaged in lobby display	<b>12301</b>
Average % of Engaged Residents	<b>57.24%</b>
Total # of bags distributed	<b>88372</b>
Total # of door hanger magnets distributed	<b>77177</b>

As Table 9 shows, Region staff engaged with over 57 per cent of the residents that passed by the lobby display. This engagement included a brief conversation with residents and re-affirming the key messages for the campaign. Even with this respectable level of engagement in the lobby, only a small percentage of the total residents experienced this engagement. This may help explain why those locations that did not receive lobby displays outperformed the locations that received the lobby displays. We know that all units received the P&E materials and messaging and perhaps this is sufficient as it is impossible to reach the majority of residents in buildings through a lobby display. Although the Recycle Right Pilot showed more favorable results for the campaign in general, the Region-Wide Recycle Right campaign allowed the Region to make the comparison between building groups.

## **4.3 Lessons Learned/Key Considerations**

### **4.3.1 Set up**

- Allot sufficient time to create campaign schedule considering collection routes, staff time and to allow sufficient time for monitoring and metrics planning and implementation;
- Allot sufficient time for creation of budget, business case, P&E materials and hiring of staff.

### **4.3.2 Implementation**

- Keep a close eye on the inventory of P&E materials such as door hangers, posters and bags; some materials have a longer lead time for delivery so as certain materials start depleting, a new order should be made to top up the supply of materials throughout the campaign;
- Be flexible enough to anticipate changes to the schedule and/or distribution methods for P&E; for example, buildings may request lobby displays on different day than what was scheduled or buildings may not allow the door-to-door distribution of materials so an alternative distribution method must be implemented.

### **4.3.3 Monitoring**

- If surveys are used as a monitoring tool, integrate them from the beginning of the project; limitations were experienced with the surveys as they were implemented more than half way through the campaign at which point the building selection was restricted and also the summer season may have played a part in the lower survey completion rates;
- Contract with a professional communicator or researcher to develop or help develop the survey questionnaires and map out how to aggregate and analyze data;
- If using non-professional people as survey interviewers, ensure they are trained to conduct interviews and know the importance of completing questionnaires properly. Maintain quality control on this process of the period of the campaign.
- When planning for monitoring and measurement metrics, ensure a sufficient number of building/units are included in the plan to generate representative data.

### **4.3.4 Operations**

- Ensure logistics are planned before hand; for example, arrange for all the necessary fleet vehicles required; assign teams and territories to work through the building inventory.

### **4.3.5 Future Directions**

- Design a robust monitoring plan to ensure the campaign can be measured effectively to help inform future decisions;
- This project was measured effectively through pre and post composition audits to determine the impact on different building groups. Perhaps additional long term audits



should have been added three to six months after the campaign conclusion. It is known that newly acquired behaviour tends to drop off after a period of a few weeks, particularly in the absence of on-going P&E, and it is difficult to determine how the transitory nature of some buildings may impact audit results over time. These are factors to keep in mind.

## 5. Project Budget

Table 10 below summarizes the project budget and shows the approved budget with the actual budget.

**Table 10: Project Budget, Approved and Actual**

Category	Total Cost Submitted	CIF Contribution	Peel Region Contribution	Total Actual Cost	% Change
	100%	30%	70%		
Staffing Costs	\$ 290,035	\$ 93,713	\$ 218,663	\$ 312,375	7%
P&E Materials	\$ 224,870	\$ 43,530	\$ 101,570	\$ 145,100	-55%
Contingency	\$ 60,095	\$ 5,282	\$ 12,324	\$ 17,605	-241%
<b>Total Project Cost:</b>	\$ 575,000	\$ 142,524	\$ 332,556	\$ 475,080	-21%
1.76%	\$ 10,120	\$ 2,508	\$ 5,853	\$ 8,361	-21%
<b>Total Cost:</b>	<b>\$ 585,120</b>	<b>\$ 145,033</b>	<b>\$ 338,409</b>	<b>\$ 475,080</b>	<b>-23%</b>

\*CIF contribution was 60 per cent for contingency funding

Summary of Planned and Actual Cost Differences:

- Staffing costs were slightly higher due to annual inflation based wage increase;
- Some P&E Materials quotes contained higher costs than what was actually incurred during the project;
- Some P&E Materials were not required in the same quantities as budgeted for;
- A small percentage of contingency was required due to the addition of work not originally scheduled in the project plan.

## 6. Conclusions

The Recycle Right Campaign was a very resource intensive campaign which involved a significant amount of staff time to carry out. The main goal of the campaign was to reduce the cost associated with residue disposal as a result of non-recyclables (mainly tied plastic bags and garbage bags). The Recycle Right Pilot conducted in 2014 yielded positive results. The Region-wide version of the campaign did not achieve the level of reduction in non-recyclable materials found in the recycling stream as indicated by the waste audit data in this report.

This project measured the effectiveness of the campaign for the entire Region and for two distinct building groups: 1) buildings receiving P&E materials and a lobby display and 2) buildings receiving only P&E materials. Results were measured through pre and post waste composition audits and qualitative in-person surveys. The results of the audits showed that buildings that received P&E materials only reduced their level of contamination to a greater extent compared to buildings that received P&E materials and a lobby display. This was somewhat corroborated by the qualitative survey results as respondents indicated that they have shifted their behavior from using grocery/garbage bags to using the Region-provided reusable recycling bag. As indicated, more survey responses are required to make any definitive conclusions on this behavior.

Overall the Recycle Right Campaign achieved a 21 per cent reduction, by weight, in the amount of materials received in grocery/shopping bags and black garbage bags. In addition to this, there was a 6 per cent reduction in garbage and overall contamination by non-recyclable materials. The overall contamination rate decreased from 32 per cent to slightly below 30 per cent.

It appears based on the results of this project that providing effective and practical P&E can change behavior. The additional resources in providing face to face interaction warrants further investigation as definitive conclusions could not be drawn when comparing the quantitative and qualitative data collected from the composition audits and in-person surveys.

It is clear that P&E is an important part of a municipality's tool kit to encourage a change in behavior, however as found in this campaign, providing P&E alone will not solve the issue(s) at hand. Municipalities must explore other options such as best practices implementation and enforcement to complement P&E materials in an effort to reduce contamination and increase the recovery of Blue Box materials.

## **Appendix 1 – Promotion & Education Materials**

- 1) Lobby Display Notice Poster
- 2) Door Hanger with Magnet
- 3) Reusable Recycling Bags
- 4) Multi-residential Waste Management Guide
- 5) Recycle Right Poster
- 6) Reminder Door Hanger

# RecycleRight

– It's in the bag.



**Join us in your lobby on:**

---

**Come by our booth to learn more about recycling  
in your building and why using your reusable  
Region of Peel bag is so important.**

**For more information about waste management services  
in the Region of Peel go to [peelregion.ca/waste](http://peelregion.ca/waste)**

# RecycleRight

– It's in the bag.

Use your FREE reusable Region of Peel recycling bag to carry your acceptable items to your building's recycling bin. They are available at your property management office.

Recycling placed in a tied plastic grocery or garbage bag ends up as garbage.

Remove the recycling magnet and post it in your unit. Use it as a guide when sorting your acceptable items.

## RecycleRight

– It's in the bag.

Use your Region of Peel reusable bag to take your loose acceptable items to your building's recycling bin.



Flattened Cardboard Boxes



Plastic Tubs and Lids



Aluminum foil, plates and trays



Milk Cartons and Juice Boxes



Steel and Aluminum Food and Beverage Cans



Glass Bottles and Jars



Empty Aerosol and Metal Paint Cans



Cardboard Cartons



Printed Papers and Newspaper



Plastic Bottles, Jugs and Jars



Polystyrene Foam Packaging



Clean and Empty Plastic Packaging



[peelregion.com/waste](http://peelregion.com/waste)

**Region of Peel**  
Working for you







**This is an important document. Please get it translated.**

## Other Waste Management Services

## Community Recycling Centres

## Waste Management Guide for Apartments and Condominiums

هذه معلومات هامة.  
نرجو منك ترجمتها.

Ovo je važna informacija.  
Molimo vas da prevedete.

此乃重要文件，請找人為您翻譯

Ce document est important.  
Veuillez le faire traduire.

यह सूचनापत्र महत्वपूर्ण है।  
कृपया इसका अनुवाद करा लें।

આ માહિતી મહત્વની છે.  
મહેરબાની કરીને એનું ભાષાંતર કરાવશો.

Jest to ważny dokument.  
Prosimy o wykonanie tłumaczenia.

ਇਹ ਦਸਤਾਵੇਜ਼ ਬਹੁਤ ਜ਼ਰੂਰੀ ਹੈ।  
ਕ੍ਰਿਪਾ ਕਰ ਕੇ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਵਾ ਲਓ।

இது முக்கிய தகவல்.  
தயவு செய்து இதை மொழிபெயர்த்துக்கொள்ளவும்.

یہ دستاویز اہم ہے۔  
برائے مہربانی اسکا ترجمہ کرائیں۔

Tài liệu quan trọng.  
Xin vui lòng chuyên dịch.

### The Region of Peel also collects:



Christmas trees



Furniture and large items



Metal appliances and fixtures

Peel has a network of six Community Recycling Centres (CRCs) where residents can conveniently drop off items for disposal like:



Items for reuse



Dishes and cookware



Household hazardous waste



Electronics

### Locations

Fewster Community Recycling Centre

1126 Fewster Dr.  
Mississauga L4W 2A4

Battleford Community Recycling Centre

2255 Battleford Rd.  
Mississauga L5N 8P6

Brampton Community Recycling Centre

395 Chrysler Dr.  
Brampton L6S 6G3

Bolton Community Recycling Centre

109 Industrial Rd.  
Bolton L7E 1K5

Caledon Community Recycling Centre

1795 Quarry Dr.  
Caledon L7K 1R9

Heart Lake Recycling Centre

420 Railside Dr.  
Brampton L7A 0N8

## RECYCLE RIGHT



[peelregion.ca/waste](http://peelregion.ca/waste)



Visit [peelregion.ca/waste](http://peelregion.ca/waste) for more information about Peel's CRCs and other Waste Management Services.





# 1 • 2 • 3 Steps to Recycle Right

## STEP 1:

Learn about Peel's Recycling Program

- Get to know if your items belong in the recycling bin

Visit [peelregion.ca/waste](https://peelregion.ca/waste) and use the How To Sort Your Waste tool to find out if your item can go in your building's recycling bin.



**Empty beverage cartons and boxes**



**Empty aerosol and metal paint cans**

Remove paint can lids and place in blue box



**Empty glass bottles and jars**

Place caps in garbage



**Printed paper**

No shredded paper – place loose with yard waste or in green bin

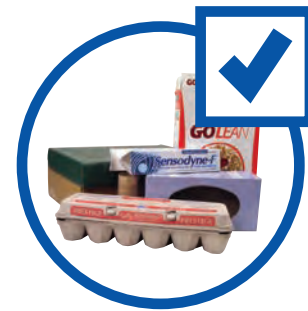


**Empty and rinsed metal food and beverage containers**

Do not flatten cans



**Clean and empty polystyrene foam packaging**



**Cardboard cartons**

Remove liners and place in garbage, empty and flatten all boxes



**Flattened cardboard – not to exceed 90 cm x 90 cm (36 in. x 36 in.)**

Remove plastic wrapping



**Aluminum foil plates and trays**

No foil wrap



**Clean and empty plastic bottles, jugs, tubs and lids**

Separate lids from tubs. Place caps from bottles in the garbage



**Clean and empty plastic packaging**

Remove any absorbent pads, liners or foil

## STEP 2:

Organize and Prepare Recycling in Your Home

- Use the entire product you've purchased then empty and rinse the acceptable item to help reduce odours
- Collect your acceptable items in your home by using your free Region of Peel reusable bag
- Remember: Items inside tied plastic grocery or garbage bags can't be recycled when they are put in your building's bin



## STEP 3:

Bring Your Items to Your Building's Recycling Bin

- Empty your acceptable items from your Region of Peel reusable bag into one of your building's recycling bins



## DON'T WASTE YOUR RECYCLING EFFORTS

Recyclable items put inside a tied plastic bag cannot be recycled; the items inside are sent to landfill as garbage.





# RecycleRight

## – It's in the bag.

Use your Region of Peel reusable bag to take your loose acceptable recyclable items to your building's recycling bin.

If you put your acceptable items into the recycling bin in a tied plastic grocery or garbage bag they end up as garbage.



Flattened  
Cardboard Boxes



Plastic Tubs  
and Lids



Aluminum foil,  
plates and trays



Milk Cartons and  
Juice Boxes



Steel and Aluminum Food  
and Beverage Cans



Clean and Empty Plastic  
Packaging



Glass Bottles  
and Jars



Empty Aerosol and  
Metal Paint Cans



Cardboard Cartons



Printed Papers  
and Newspaper



Plastic Bottles,  
Jugs and Jars Clean



Clean and Empty Polystyrene  
Foam Packaging

**REMEMBER:** Empty and rinse your containers before recycling.



Don't waste your recycling efforts.  
Learn more at [peelregion.ca/waste](http://peelregion.ca/waste)

# Recycle**Right**

## – it's in the bag.

Thank you for your ongoing efforts to use your Region of Peel reusable bag and recycle right!

Over the next few weeks we will be checking your building's recycling progress, so remember to:



**Collect** your loose recyclable items in your Region of Peel reusable bag.



**Use** your Region of Peel reusable bag, to bring your loose recyclable items to your building's recycling bin.



**Remember** that recyclable items end up as garbage if they are tied in a plastic grocery or garbage bag.

**Don't waste your recycling efforts.**

[peelregion.com/waste](http://peelregion.com/waste)

 **Region of Peel**  
Working for you

WMG-0445 15/12

## **Appendix 2 - Lobby Displays Schedule**



# PHASE 2 Lobby DisplaysSplit for each team

Note:

Week of	Team #	Monday	Tuesday	Wednesday	Thursday	Friday
01-Feb	Team 1	3 LISA ST	11 LISA ST	3420 MORNINGSTAR DR	7110 DARCEL AVE	No Lobby Display
	Team 2	4 LISA ST	8 SILVER MAPLE COURT	3425 MORNINGSTAR DR	7170 DARCEL AVE	No Lobby Display
	Team 3	5 LISA ST	6 SILVER MAPLE COURT	7340 GOREWAY DR	7230 DARCEL AVE	No Lobby Display
	Team 4	7350 GOREWAY DR	7350 DARCEL AVE	No Lobby Display	No Lobby Display	No Lobby Display
	Team 5	9 LISA ST	2 SILVER MAPLE COURT	7095 RECKWOOD DR	7405 GOREWAY DR	No Lobby Display
08-Feb	Team 1	195 KENNEDY RD S	2 HANOVER RD	37 EASTBOURNE DR	10 LAURECREST ST	7555 GOREWAY DR
	Team 2	16 JOHN ST E	4 KINGS CROSS RD	15 EASTBOURNE DR	12 LAURECREST ST	No Lobby Display
	Team 3	22 BEICH ST	4 DAYSPRING CIR	790 - 800 CLARK BLVD	115 QUEEN ST E	No Lobby Display
	Team 4	26 HANOVER RD	6 DAYSPRING CIRCL	190 CLARK BLVD	78 BRAEMAR DR	No Lobby Display
	Team 5	4 HANOVER RD	8 DAYSPRING DR	7256 AIRPORT RD	507 BALMORAL DR	No Lobby Display
15-Feb	Team 1	Holiday	120 ACORN PLACE	1360 RATHBURN DR E	4 KNIGHTSBRIDGE RD	17 KNIGHTSBRIDGE RD
	Team 2	Holiday	50 ABSOLUTE AVENUE	1111 BOUGH BEECHES	10 KNIGHTSBRIDGE RD	No Lobby Display
	Team 3	Holiday	60 ABSOLUTE AVENUE	1155 BOUGH BEECHES	3 KNIGHTSBRIDGE RD	21 KNIGHTSBRIDGE RD
	Team 4	Holiday	25 KENSINGTON RD	11 KNIGHTSBRIDGE RD	15 KENSINGTON RD	70 ABSOLUTE AVE
	Team 5	Holiday	18 KNIGHTSBRIDGE RD	10 KENSINGTON RD	5 KINGS CROSS RD	365 PRINCE OF WALES DRIVE
22-Feb	Team 1					0
	Team 2	7900 McLAUGHLIN RD	1500 GRAZIA CT.	2125 - 65 SHERIDAN PARK DR	1800 THE COLLEGE WAY	No Lobby Display
	Team 3	45 KING KNOLL DR	1850 RATHBURN RD E	2121 ROCHE COURT	1 HURONTARIO STREET	No Lobby Display
	Team 4	6025 - 45 GLEN ERIN DR	4100 PONYTRAIL DR	3525 KARIYA DR	33 HURONTARIO STREET	No Lobby Display
	Team 5	2121 RATHBURN RD E	70 PARK ST EAST	115 HILLCREST AVE	385 - 395 - 405 RATHBURN RD E	No Lobby Display
	Team 5	68 BRAMALEA RD	1315 BOUGH BEECHES BLVD	155 HILLCREST AVE	360 SQUARE ONE DRIVE	No Lobby Display
29-Feb	Team 1	2076 SHEROEBE RD	2200 SHEROEBE RD	550 WEBB DR	1580 MISSISSAUGA VALLEY BLVD	No Lobby Display
	Team 2	2233 HURONTARIO ST	No Lobby Display	2556 ARGYLE RD	549 NORTH SERVICE RD	No Lobby Display
	Team 3	2091 HURONTARIO ST	2247 HURONTARIO ST	250 WEBB DR	3650 KANEFF CHES	No Lobby Display
	Team 4	2177 SHEROEBE RD	2235 HURONTARIO ST	3655 KARIYA DR	3121 KIRWIN AVE	No Lobby Display
	Team 5		2485 HURONTARIO ST	156 ENFIELD PLACE	3504 HURONTARIO ST	No Lobby Display
07-Mar	Team 1					2
	Team 2	573 NORTH SERVICE RD	285 NORTH SERVICE RD	2070 CAMILLA RD	75 KING ST E	No Lobby Display
	Team 3	275 NORTH SERVICE RD	2100 CAMILLA RD	1785 BLOOR ST E	No Lobby Display	No Lobby Display
	Team 4	535 NORTH SERVICE RD	265 NORTH SERVICE RD	2503 HURONTARIO ST	2542 ARGYLE RD	No Lobby Display
	Team 5	515 NORTH SERVICE RD	255 NORTH SERVICE RD	2507 HURONTARIO ST	No Lobby Display	No Lobby Display
	Team 5	2020 CLIFF RD	65 NORTH SERVICE RD	85 KING ST E (No LD)	3120 KIRWIN AVE	2211 SHEROEBE RD
14-Mar	Team 1					0
	Team 2	1535 LAKESHORE RD E	1011 DUNDAS ST E	1750 BLOOR ST E	1867 BLOOR ST E	No Lobby Display
	Team 3	1515 LAKESHORE RD E	935 DUNDAS ST E	1759 BLOOR ST E	No Lobby Display	210 STEELES AVE
	Team 4	1485 LAKESHORE RD E	880 RILEY COURT	1840 BLOOR ST E	1745 BLOOR ST E	No Lobby Display
	Team 5	1257 LAKESHORE RD E	3020 QUEEN FEDERICA DR	1850 BLOOR ST E	3575 KANEFF	220 STEELES AVE
	Team 5	1025 FERGUS AVE	3045 QUEEN FEDERICA DR	1900 BLOOR ST E	1615 BLOOR ST E	
21-Mar	Team 1					
	Team 2	1150 PARK WEST PLACE	1017 SENECA AVE	363 LAKESHORE RD E	3125 QUEEN FEDERICA DR	Holiday
	Team 3	1051 SENECA AVE	1020 SHAW DR	3445 QUEEN FEDERICA DR	No Lobby Display	Holiday
	Team 4	1110 CAVEN ST	1061 SENECA AVE	480 LAKESHORE RD E	3150 GOLDEN ORCHARD DR	Holiday
	Team 5	1060 CAVEN ST	3170 GOLDEN ORCHARD DR	3085 QUEEN FEDERICA DR	212 LAKESHORE RD E	Holiday
	Team 5		1015 ROOSEVELT DR	3315 FIELDGATE DR	1333 BLOOR ST E	Holiday
28-Mar	Team 1					0
	Team 2	1177 BLOOR ST E	1275 SILVER SPEAR RD	1470 WILLIAMSPORT DR	1624 BLOOR ST	No Lobby Display
	Team 3	141 MAIN ST S	51 McMURCHY AVE N	40 POLONIA AVE	1355 WILLIAMSPORT DR	No Lobby Display
	Team 4	3400 RIVERSPRAY CRES	3355 PONYTRAIL DR	1485 WILLIAMSPORT DR	No Lobby Display	No Lobby Display
	Team 5	125 RAILROAD ST	47 McMURCHY AVE N	1440 BLOOR ST E	No Lobby Display	No Lobby Display
	Team 5	3315 SILVERSPEAR RD	3480 HAVENWOOD DR	3320 FIELDGATE DR	3515 KARIYA DR	No Lobby Display
04-Apr	Team 1					0
	Team 2	143 MAIN ST S	75 CHAROLAIS BLVD	30 POLONIA AVE	53 McMURCHY AVE N	No Lobby Display
	Team 3	1055 BLOOR ST E	95 CHAROLAIS	1455 WILLIAMSPORT DR	3375 PONYTRAIL DR	No Lobby Display
	Team 4	330 MILL ST	450 McMURCHY AVE S	123 RAILROAD ST	49 McMURCHY AVE N	No Lobby Display
	Team 5	330 MILL ST	440 McMURCHY AVE S	135 SILVER SPEAR RD	1665 BLOOR ST E	No Lobby Display
	Team 5	330 MILL ST	8351 McLAUGHLIN RD	55 McMURCHY AVE N	31 FAIROAKS PLACE S	No Lobby Display
11-Apr	Team 1					0
	Team 2	30 TULLAMORE COURT	365 KENNEDY RD S	11 CHURCH ST W	186 CHURCH ST	No Lobby Display
	Team 3	165 KENNEDY RD S	370 STEELES AVE E	1 BELVEDERE COURT	182 CHURCH ST E	No Lobby Display
	Team 4	195 KENNEDY RD S	71 MARY ST	53 CHURCH ST E	171 CHURCH ST E	No Lobby Display
	Team 5	25 RAMBLER DR	33 KENNEDY RD S	80 SCOTT ST	161 CHURCH ST E	No Lobby Display
	Team 5	34 RAMBLER DR	80 ORENDA CREST	99 KENNEDY RD N	215 QUEEN ST EAST	No Lobby Display
18-Apr	Team 1					0
	Team 2	1555 SOUTH PARADE COURT	330 RATHBURN DR W	2869 BATTLEFORD RD	2770 AQUITAINE AVE	No Lobby Display
	Team 3	1290 RATHBURN RD W	350 RATHBURN RD W	2900 BATTLEFORD RD	No Lobby Display	No Lobby Display
	Team 4	820 SCOLLARD COURT	4070 CONFEDERATION PKWY	2750 BATTLEFORD RD	6749 GLEN ERIN DR	No Lobby Display
	Team 5	700 CONSTELLATION DR	4099 BRICKSTONE MEWS	2757 BATTLEFORD RD	6720 GLEN ERIN DR	No Lobby Display
	Team 5	335 RATHBURN RD W.	4065 BRICKSTONE MEWS	6500 MONTEVIDEO RD	2301 DERRY RD	No Lobby Display
25-Apr	Team 1					1
	Team 2	1035 WINDSOR HILL BLVD	4620 KIMBERMOUNT AVE	5035 OSCAR PETERSON	2665 WINDWOOD DR	No Lobby Display
	Team 3	No Lobby Display	No Lobby Display	30 CENTRAL PARKWAY W	2200 ROCHE COURT	No Lobby Display
	Team 4	4080 LIVING ARTS DR	5100 WINSTON CHURCHILL	3075 THOMAS ST	2720 WINDWOOD DR	No Lobby Display
	Team 5	350 PRINCESS ROYAL DR	5150 WINSTON CHURCHILL BLVD	5705 LONG VALLEY RD	2770 WINDWOOD DR	
	Team 5	380 PRINCESS ROYAL DR	5975 -5985 - 5995 GLEN ERIN DR	6550 GLEN ERIN DR	5170 WINSTON CHURCHILL BLVD	No Lobby Display
02-May	Team 1					5
	Team 2	16 JOHN ST E	300 RAY LAWSON BLVD	4 SIR LOU DR	4470 TUCANA COURT	35 TRAILWOOD DR
	Team 3	40 COUNTY COURT BLVD	100 JOHN ST	20 CHERRYTREE DR	2929 AQUITAINE AVE	No Lobby Display
	Team 4	No Lobby Display (Building repeated)	54 MALTA AVE	100 COUNTY COURT BLVD	155 FORUM DR	25 GLEN HAWTHORNE BLVD
	Team 5	6599 GLEN ERIN DR	66 MALTA AVE	1395 WILLIAMSPORT	No Lobby Display	No Lobby Display (Building repeated)
	Team 5	6 SIR LOU DR	7 ELIZABETH ST N	2700 AQUITAINE	7820 McLAUGHLIN DR	25 TRAILWOOD DR / 4450 TUCANA C
09-May	Team 1					5
	Team 2	9 GEORGE STREET NORTH (BRAMPTON)	3089 JAGUAR VALLEY DR	85 ACORN PLACE	355 RATHBURN RD E	No Lobby Display
	Team 3	50 EGLINTON AVE W	No Lobby Display	121 ACORN PLACE	4295 SHIPP DR	No Lobby Display
	Team 4	388 PRINCE OF WALES DRIVE	25 KINGSBRIDGE GRD CIRCLE	1100 ACORN PLACE	4185 SHIPP DR	No Lobby Display
	Team 5	388 PRINCE OF WALES DR	35 KINGSBRIDGE GRD CIRCLE	1500 GRAZIA CT.	200 ROBERT SPECK PKWY	No Lobby Display
	Team 5	45 KINGSBRIDGE GRD CIRCLE	1423 MISSISSAUGA VALLEY BLVD	30 ELM DR E	385 - 395 - 405 RATHBURN RD E	No Lobby Display
16-May	Team 1					0
	Team 2	3939 DUKE OF YORK	55 ELM DR W	1250 MISSISSAUGA VALLEY BLVD	1477 MISSISSAUGA VALLEY BLVD	No Lobby Display
	Team 3	No Lobby Display	220 BURNHAMTHORPE RD W	1300 MISSISSAUGA VALLEY BLVD	1547 MISSISSAUGA VALLEY BLVD	No Lobby Display
	Team 4	208 ENFIELD PLACE	33 ELM DR W	1320 MISSISSAUGA VALLEY BLVD	1563 MISSISSAUGA VALLEY BLVD	No Lobby Display
	Team 5	285 ENFIELD PLACE	3515 KARIYA DR	1465 MISSISSAUGA VALLEY BLVD	50 ELM DR E	No Lobby Display
	Team 5	3880 DUKE OF YORK DR	200 BURNHAMTHORPE RD E	3460 FIELDGATE DR.	No Lobby Display	No Lobby Display
23-May	Team 1					0
	Team 2	Holiday	3985 GRAND PARK DRIVE	225 WEBB DR	33 CENTRAL PARKWAY W	No Lobby Display
	Team 3	Holiday	400 WEBB DR	325 WEBB DR	2250 SOUTH MILLWAY	No Lobby Display
	Team 4	Holiday	300 WEBB DR	330 BURNHAMTHORPE RD W.	20 MISSISSAUGA VALLEY BLVD	No Lobby Display
	Team 5	Holiday	3480 COLONIAL DR	3420 THE COLLEGE WAY	50 MISSISSAUGA VALLEY BLVD	No Lobby Display
	Team 5				2300 CONFEDERATION PKWY	3525 KARIYA DR (Duplicate)
30-May	Team 1					5
	Team 2	3501 GLEN ERIN DR	2305 SOUTH MILLWAY	90 ABSOLUTE PLACE	1110 WALDEN CIRCLE/1425 BOOMIN RD	No Lobby Display
	Team 3	No Lobby Display	2590 ARGYLE RD	530 LOUTA GONS	3455 GLEN ERIN DR	No Lobby Display
	Team 4	2445 THE COLLEGE WAY	1900 THE COLLEGE WAY	2345 TRUSCOTT DR	966 INVERHOUSE DR	No Lobby Display
	Team 5	2375 THE COLLEGE WAY	1800 THE COLLEGE WAY *check with team 1	600 LOUTA GONS	No Lobby Display	No Lobby Display
	Team 5	2285 THE COLLEGE WAY	No Lobby Display	No Lobby Display	1055 SOUTH DOWN	1201 WALDEN CIRCLE
06-Jun	Team 1					5
	Team 2	2150 BROMSGROVE DR	2185 SHERIDAN PARK DR	2095 ROCHE COURT	No Lobby Display	No Lobby Display
	Team 3	2250 HOMELANDS RD	No Lobby Display	30 HIGH ST E	1660 BLOOR ST	No Lobby Display
	Team 4	2150 ROCHE COURT	1970 FOWLER DR	3590 COLONIAL DR	2333 HURONTARIO ST	570 LOUTA GARDENS
	Team 5	2111 ROCHE COURT	1980 FOWLER DR	3570 COLONIAL DR	66 KING ST W	No Lobby Display
	Team 5	55 PARK ST E	80 ABSOLUTE AVE	2699 BATTLEFORD RD	1700 THE COLLEGE WAY	No Lobby Display
13-Jun	Team 1					5
	Team 2	70 PORT ST E	12 PARK ST E	21 HIGH ST E	No Lobby Display	No Lobby Display
	Team 3	4 CAROLINE ST	80 PORT ST E	26 PARK ST E	No Lobby Display (complete 177 Dundas survey)	No Lobby Display
	Team 4	65 PORT STREET EAST (MISSISSAUGA)	28 ELIZABETH ST N	35 FRONT ST S	No Lobby Display	No Lobby Display
	Team 5	No Lobby Display	12 HELENE ST N	No Lobby Display	No Lobby Display	No Lobby Display
	Team 5	3150 JAGUAR VALLEY DR	1050 STAINTON RD	1301 DUNDAS ST W	No Lobby Display (complete 70 Paisley survey)	620 LOUTA GONS
20-Jun	Team 1					3
	Team 2	1055 FORESTWOOD DR	No Lobby Display	No Lobby Display	3015 PARKERHILL RD	No Lobby Display
	Team 3	100 DUNDAS ST E	15 FAIRVIEW RD E	1190 FORESTWOOD DR	1001 CEDAR GLEN GATE	No Lobby Display
	Team 4	120 DUNDAS ST E	25 FAIRVIEW RD W	1180 FORESTWOOD DR	1000 CEDAR GLEN GATE	2570 ARGYLE RD
	Team 5	3180 KIRWIN AVE	30 HANSON RD	3100 ERINDALE STATTON RD	1175 DUNDAS ST W	No Lobby Display
	Team 5	121 AGNES ST	No Lobby Display	2584 RUGBY RD	No Lobby Display	No Lobby Display
27-Jun	Team 1					5
	Team 2	45 PAISLEY BLVD W (Survey)	80 PAISLEY BLVD W	150 PAISLEY BLVD W	105 DUNDAS ST W (Survey)	Holiday
	Team 3	55 PAISLEY BLVD W	No Lobby Display	No Lobby Display	177 DUNDAS ST W (Survey)	Holiday
	Team 4	50 PAISLEY BLVD W	2425 CONFEDERATION PKWY (Survey)	3122 HURONTARIO ST	No Lobby Display	No Lobby Display
	Team 5	75 PAISLEY BLVD W	2365 CONFEDERATION PKWY (Survey)	99 AGNES ST	3023 PARKERHILL RD	Holiday
	Team 5	5 ANN ST	20 ELIZABETH ST N	1271 WALDEN CIR	No Lobby Display	Holiday
04-Jul	Team 1					5
	Team 1	3395 PONYTRAIL DR -Complete additional deliveries (shaded orange on the right)	3310 FIELDGATE DR -Complete additional deliveries (shaded orange on the right)	2465 HURONTARIO ST	45 PAISLEY BLVD W	No Lobby Display
	Team 2	2440 HURONTARIO ST	No lobby display (Complete 1015 ORCHARD RD survey)	65 PAISLEY BLVD W	No Lobby Display	No Lobby Display
	Team 3	1835 BLOOR ST -Complete additional deliveries (shaded orange on the right)	1525 BLOOR ST -Complete additional deliveries (shaded orange on the right)	2437 HURONTARIO ST	2323 CONFEDERATION PKWY	No Lobby Display

Team 4	1780 BLOOR ST -Complete additional deliveries (shaded orange on the right)	3370 HAVENWOOD DR -Complete additional deliveries (shaded orange on the right)	2427 HURONTARIO ST	No Lobby Display
Team 5	39 STAVEBANK RD N	2590 RUGBY RD	No Lobby Display	1750 BLOOR ST -Complete additional deliveries (shaded orange on the right)
11-Jul				1465 TYNEBURN CR -Complete additional deliveries (shaded orange on the right)
Team 1	2395 HOMELANDE DR	1510 LAKESHORE RD W	1219 DUNDAS ST W	1470 BLOOR ST
Team 2	3410 HAVENWOOD DR	101-325 Gardengate Circle	1900 NORTH SHERIDAN WAY	No Lobby Display
Team 3	2065 LEANNE BLVD	2535 ERN CENTRE BLVD	880 DUNDAS ST W	No Lobby Display
Team 4	2440 TRUSCOTT DR	2565 ERIN CENTRE BLVD	1745 DUNDAS ST E	2565 ERIN CENTRE DR
Team 5	6509 GLEN ERIN DR	4100 WESTMINSTER PL	25 PAISLEY BLVD W	No Lobby Display
18-Jul				
Team 1	1285 LAKESHORE RD E	15 ELIZABETH ST N	82 PARK ST E	4050 DIXIE RD
Team 2	No Lobby Display	1015 ORCHARD RD	25 PARK ST E	No Lobby Display
Team 3	1045 ENOLA AVE	2585 ERIN CENTRE BLVD	68 HIGH ST E	73 KING ST W
Team 4	27 JOHN ST S	1745 DUNDAS ST E	3081 BATTLEFORD RD	No Lobby Display
Team 5	No Lobby Display	7 HELENE ST N	3025 QUEEN FREDERICA DR	1475 BLOOR ST
25-Jul				
Team 1	4840 KIMBERMOUNT AVE -Complete additional deliveries (shaded orange on the right)	2177 BURNHAMTHORPE RD W -Complete additional deliveries (shaded orange on the right)	110 ACORN PL	6 Silver Maple Crt (5:00-8:00)
Team 2	1255 VANROSE ST	1205 VANROSE ST	2485 WOKING CRES	No Lobby Display
Team 3	4889 KIMBERMOUNT AVE -Complete additional deliveries (shaded orange on the right)	3058 WINSTON CHURCHILL BLVD -Complete additional deliveries (shaded orange on the right)	1185 VANROSE ST	3655 REDMOND RD
Team 4	4879 KIMBERMOUNT AVE -Complete additional deliveries (shaded orange on the right)	35 STRATHAVEN	4983 RATHKEALE RD	145 HILLCREST AVE
Team 5	3064 JAGUAR VALLEY DR	3700 KANEFF CR	4235 SHERWOODTOWNE BLVD	3094 JAGUAR VALLEY DR
01-Aug				
Team 1	Holiday	3577 DERRY RD E	4150 WESTMINSTER PL	3533 DERRY RD E
Team 2	Holiday	3555 DERRY RD E	No Lobby Display	1275 Cornetbrook PI
Team 3	Holiday	1359 RATHBURN RD E	45 GLENN HAWTHORNE BLVD	3105 QUEEN FREDERICA DR
Team 4	Holiday	3665 ARISTA WAY	924 RATHBURN RD E	20 STRATHAVEN DR
Team 5	Holiday	111 AGNES ST	3141 JAGUAR VALLEY DR	3455 MORNING STAR DR
08-Aug				
Team 1	20 PAISLEY BLVD W (Survey)	169 DUNDAS ST W (Survey)	501 BALMORAL DR	No Lobby Display
Team 2	No Lobby Display	15 PARK HILL CT	5 DAYSPRING CIR	483 FAITH DR
Team 3	3151 JAGUAR VALLEY DR	2015 VODDEN ST E	35 VIA ROSEDALE	22 HANOVER RD
Team 4	3065 QUEEN FREDERICA DR	3052 JAGUAR VALLEY DR	3151 JAGUAR VALLEY DR	3170 KIRWIN AVE
Team 5	65 VIA ROSEDALE	55 VIA ROSEDALE	25 AGNES ST	No Lobby Display
15-Aug				
Team 1	**55 GLEN HAWTHORNE	32 TANNERY ST	58 CHURCH ST E	53 MCHARDY PL
Team 2	30 TANNERY ST	10 MALTA AVE	Post campaign surveys at 1015 Orchard	No Lobby Display
Team 3	270 CHURCH ST	73 CLARENCE ST	188 MILL ST S	116 RAILROAD ST
Team 4	7435 GOREWAY DR	25 VIA ROSEDALE	45 VIA ROSEDALE	24 HANOVER RD
Team 5	17 SCOTT ST	176 MILL ST S	25 JUNE AVE	400 RAY LAWSON BLVD
22-Aug				
Team 1	26 JUNE AVE	18 REID DR	135 HILLCREST AVE	64 BRAMALEA RD
Team 2	No Lobby Display	No Lobby Display	No Lobby Display	No Lobby Display
Team 3	1475 BRISTOL RD W	3888 DUKE OF YORK BLVD	1100 CAVEN ST	15 NANWOOD DR
Team 4	190 WYNDHAM ST	1 MAPLE AVE	184 MILL ST S	167 CHURCH ST E
Team 5	16 MAIN ST	3100 KIRWIN AVE	1300 BLOOR ST	No Lobby Display
29-Aug				
Team 1	30 MALTA AVE	1030 GREAVES AVE (missed F/E building)	806 Clark Blvd. (missed F/E building)	No Lobby Display
Team 2	No Lobby Display	No Lobby Display	No Lobby Display	No Lobby Display
Team 3	160 MURRAY ST	8 OAKWOOD AVE N (missed F/E building)	1035 FERGUS AVE (missed F/E building)	No Lobby Display
Team 4	4 CAROLINE ST	1400 DIXIE RD	192 MILL ST S	No Lobby Display
Team 5	14 REID DR	2660 AQUITAINE AVE	10 LISA ST	No Lobby Display
05-Sep				
Team 1	Holiday			
Team 2	Holiday			
Team 3	Holiday			
Team 4	Holiday			
Team 5	Holiday			

Lobby Display - Audit Buildings  
No Lobby Display - Audit Building  
Lobby Display - Non-Audit building  
Properties that may not have space for lobby display

## Recycle Right Campaign Schedule - Weekly Deliverables and Dedicated Truck Audit Schedule

Week	Deliverables	Audit Dates
25-Jan	<b>Route 1973:</b> Phase 1 Material Distribution to 20 Audit Buildings	
01-Feb	<b>Route 1973:</b> Phase 2 Lobby Displays at 20 Audit Locations; <b>Route 1973:</b> Phase 1 Material Distribution 22 remaining Buildings	
08-Feb	<b>Route 1973:</b> Phase 2 Lobby Displays at 22 remaining Buildings; <b>Route 1975:</b> Phase 1 Material Distribution at 20 Audit Buildings	Tuesday Feb. 9 - Pre-Audit 1: Route 2973
15-Feb	<b>Route 1973:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 1975:</b> Phase 2 Lobby Displays at 20 Audit Buildings; <b>Route 1975:</b> Phase 1 Material Distribution to 10 remaining Buildings; <b>Route 2973:</b> Phase 1 Material Distribution 10 Buildings	
22-Feb	<b>Route 1973:</b> Phase 3 Door Hanger Delivery to 22 remaining buildings; <b>Route 1975:</b> Phase 2 Lobby Displays 10 remaining Buildings <b>Route 2973:</b> Phase 2 Lobby Displays 10 Buildings; <b>Route 2973:</b> Phase 1 Material Distribution to 20 Audit Buildings	Tuesday Feb. 23 - Pre-Audit 2: Route 2973
29-Feb	<b>Route 1975:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 2973:</b> Phase 2 Lobby Displays 20 Audit Buildings; <b>Route 2973:</b> Phase 1 Material Distribution to 22 Remaining Buildings	Monday Feb. 29 - Post-Audit 1: Route 1973
07-Mar	<b>Route 1975:</b> Phase 3 Door Hanger Delivery to 10 remaining buildings; <b>Route 2973:</b> Phase 3 Door Hanger Delivery to 10 Buildings; <b>Route 2973:</b> Phase 2 Lobby Displays 22 Remaining Buildings; <b>Route 2974:</b> Phase 1 Material Distribution to 20 Audit Buildings	Thursday March 10 - Pre-Audit: Route 4975
14-Mar	<b>Route 2973:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 2974:</b> Phase 2 Lobby Displays 20 Audit Buildings; <b>Route 2974:</b> Phase 1 Material Distribution 20 Buildings	
21-Mar	<b>Route 2973:</b> Phase 3 Door Hanger Delivery to 22 remaining Buildings; <b>Route 2974:</b> Phase 2 Lobby Displays 20 Buildings; <b>Route 2974:</b> Phase 1 Material Distribution 17 remaining Buildings	
28-Mar	<b>Route 2974:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 2974:</b> Phase 2 Lobby Displays 17 remaining Buildings; <b>Route 4973:</b> Phase 1 Material Distribution 20 Audit Buildings	Tuesday March 29 - Post-Audit 1: Route 2973
04-Apr	<b>Route 2974:</b> Phase 3 Door Hanger Delivery to 20 Buildings; <b>Route 4973:</b> Phase 2 Lobby Displays 20 Audit Buildings; <b>Route 4973:</b> Phase 1 Material Distribution 20 remaining Buildings	Monday April 4 - Post-Audit 2: Route 1973
11-Apr	<b>Route 2974:</b> Phase 3 Door Hanger Delivery to 17 remaining Buildings; <b>Route 4973:</b> Phase 2 Lobby Displays 20 remaining Buildings; <b>Route 4974:</b> Phase 1 Material Distribution 20 Audit Buildings	
18-Apr	<b>Route 4973:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 4974:</b> Phase 2 Lobby Displays 20 Audit Buildings; <b>Route 4974:</b> Phase 1 Material Distribution 21 remaining Buildings	Thursday April 21 - Pre-Audit 2: Route 4975
25-Apr	<b>Route 4973:</b> Phase 3 Door Hanger Delivery to 20 remaining Buildings; <b>Route 4974:</b> Phase 2 Lobby Displays 21 remaining Buildings; <b>Route 4975:</b> Phase 1 Material Distribution 25 Audit Buildings	Friday April 29 - Pre-Audit 1: Route 5974
02-May	<b>Route 4974:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 4975:</b> Phase 2 Lobby Displays 25 Audit Buildings; <b>Route 4975:</b> Phase 1 Material Distribution 25 remaining Buildings	Monday May 2 - Post-Audit 3: Route 1973
09-May	<b>Route 4974:</b> Phase 3 Door Hanger Delivery to 21 remaining Buildings; <b>Route 4975:</b> Phase 2 Lobby Displays 25 remaining Buildings; <b>Route 5973:</b> Phase 1 Material Distribution 20 Audit Buildings	Tuesday May 10 - Post-Audit 2: Route 2973
16-May	<b>Route 4975:</b> Phase 3 Door Hanger Delivery to 25 Audit Buildings; <b>Route 5973:</b> Phase 2 Lobby Displays 20 Audit Buildings; <b>Route 5973:</b> Phase 1 Material Distribution 15 remaining Buildings	<b>Monday May 16 - Pre-Audit 1 for cart recycling routes 3 &amp; 4</b>
23-May	<b>Route 4975:</b> Phase 3 Door Hanger Delivery to 25 remaining Buildings; <b>Route 5973:</b> Phase 2 Lobby Displays 15 remaining Buildings; <b>Route 5974:</b> Phase 1 Material Distribution 20 Audit Buildings	Friday May 27 - Pre-Audit 2: Route 5974
30-May	<b>Route 5973:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 5974:</b> Phase 2 Lobby Displays 20 Audit Buildings; <b>Route 5974:</b> Phase 1 Material Distribution 16 remaining Buildings	<b>Tuesday May 31 - Pre-Audit 1 for cart recycling routes 1 &amp; 5</b> Thursday June 2 - Post-Audit 1: Route 4975
06-Jun	<b>Route 5973:</b> Phase 3 Door Hanger Delivery to 15 remaining Buildings; <b>Route 5974:</b> Phase 2 Lobby Displays 16 remaining Buildings; <b>Route 5975:</b> Phase 1 Material Distribution 24 Audit Buildings	Tuesday June 7 - Post-Audit 3: Route 2973 Friday June 10 - Pre-Audit - Qualitative Survey FE Buildings
13-Jun	<b>Route 5974:</b> Phase 3 Door Hanger Delivery to 20 Audit Buildings; <b>Route 5975:</b> Phase 2 Lobby Displays 24 Audit Buildings; <b>Route 5975:</b> Phase 1 Material Distribution 25 Buildings	
20-Jun	<b>Route 5974:</b> Phase 3 Door Hanger Delivery to 16 remaining Buildings; <b>Route 5975:</b> Phase 2 Lobby Displays 25 Buildings; <b>Route 5975:</b> Phase 1 Material Distribution 20 remaining Buildings	<b>Monday June 20 - Pre-Audit 2 for cart recycling routes 3 &amp; 4</b>
27-Jun	<b>Route 5975:</b> Phase 3 Door Hanger Delivery to 24 Audit Buildings; <b>Route 5975:</b> Phase 2 Lobby Displays 20 remaining Buildings; <b>Monday Cart Routes:</b> Phase 1 Material Distribution to 20 cart recycling Audit Buildings	Monday June 27 - Pre-Audit: Qualitative Survey Cart Buildings <b>Tuesday June 28 - Pre-Audit 2 for cart recycling routes 1 &amp; 5</b> <b>Transition to Cart Recycling Routes</b>
04-Jul	<b>Route 5975:</b> Phase 3 Door Hanger Delivery to 25 Buildings <b>Monday Cart Routes:</b> Phase 2 Lobby Displays at 20 cart recycling Audit Buildings <b>Monday Cart Routes:</b> Phase 1 Material Distribution to 20 cart recycling buildings	Friday July 8 - Post-Audit 1: Route 5974
11-Jul	<b>Route 5975:</b> Phase 3 Door Hanger Delivery to 20 remaining Buildings <b>Monday Cart Routes:</b> Phase 2 Lobby Displays at 20 cart recycling buildings <b>Monday Cart Routes:</b> Phase 1 Material Distribution to 16 cart recycling buildings	Thursday July 14 - Post-Audit 2: Route 4975
18-Jul	<b>Monday Cart Routes:</b> Phase 3 Door Hanger Delivery to 20 cart recycling Audit Buildings <b>Monday Cart Routes:</b> Phase 2 Lobby Displays at 16 cart recycling buildings <b>Tuesday Cart Routes:</b> Phase 1 Material Distribution to 15 cart recycling Audit Buildings	<b>Monday July 18 - Post-Audit 1 for cart recycling routes 3 &amp; 4</b>
25-Jul	<b>Monday Cart Routes:</b> Phase 3 Door Hanger Delivery to 20 cart recycling buildings <b>Tuesday Cart Routes:</b> Phase 2 Lobby Displays at 15 cart recycling Audit Buildings <b>Tuesday Cart Routes:</b> Phase 1 Material Distribution to 15 cart recycling Buildings	
01-Aug	<b>Monday Cart Routes:</b> Phase 3 Door Hanger Delivery to 16 cart recycling buildings <b>Tuesday Cart Routes:</b> Phase 2 Lobby Displays at 15 cart recycling buildings <b>Tuesday Cart Routes:</b> Phase 1 Material Distribution to 17 cart recycling buildings	<b>Tuesday August 2 - Post-Audit 1 for cart recycling routes 1 &amp; 5</b>
08-Aug	<b>Tuesday Cart Routes:</b> Phase 3 Door Hanger Delivery to 15 cart recycling audit buildings <b>Tuesday Cart Routes:</b> Phase 2 Lobby Displays at 17 cart recycling buildings <b>Wednesday Cart Routes:</b> Phase 1 Material Distribution to 17 cart recycling locations	Thursday August 11 - Post-Audit 3: Route 4975
15-Aug	<b>Tuesday Cart Routes:</b> Phase 3 Door Hanger Delivery to 15 cart recycling buildings <b>Wednesday Cart Routes:</b> Phase 2 Lobby Displays at 17 cart recycling locations <b>Thursday Cart Routes:</b> Phase 1 Material Distribution to 20 cart recycling buildings	
22-Aug	<b>Tuesday Cart Routes:</b> Phase 3 Door Hanger Delivery to 17 cart recycling buildings <b>Thursday Cart Routes:</b> Phase 2 Lobby Displays at 20 cart recycling buildings <b>Thursday Cart Routes:</b> Phase 1 Material Distribution to 20 cart recycling buildings	<b>Monday August 22 - Post-Audit 2 for cart recycling routes 3 &amp; 4</b>
29-Aug	<b>Wednesday Cart Routes:</b> Phase 3 Door Hanger Delivery to 17 cart recycling buildings <b>Thursday Cart Routes:</b> Phase 2 Lobby Displays at 20 cart recycling buildings <b>Thursday Cart Routes:</b> Phase 1 Material Distribution to 17 cart recycling buildings	<b>Friday August 19 - Post-Audit 2: Route 5974</b>
05-Sep	<b>Thursday Cart Routes:</b> Phase 3 Door Hanger Delivery to 20 cart recycling buildings <b>Thursday Cart Routes:</b> Phase 2 Lobby Displays at 17 cart recycling buildings	<b>Tuesday September 6 - Post-Audit 2 for cart recycling routes 1 &amp; 5</b>
12-Sep	<b>Thursday Cart Routes:</b> Phase 3 Door Hanger Delivery to 20 Cart Recycling Building	
19-Sep	<b>Thursday Cart Routes:</b> Phase 3 Door Hanger Delivery to 17 Cart Recycling Building	<b>Monday September 19 - Post-Audit 3 for cart recycling routes 3 &amp; 4</b>
26-Sep		<b>Friday September 30 - Post-Audit 3: Route 5974</b>
03-Oct		<b>Tuesday October 4 - Post-Audit 3 for cart recycling routes 1 &amp; 5</b>

### **Appendix 3 - Miller Dedicated Audit Schedule 2016**

## Recycle Right Campaign - Dedicated Truck Audit Schedule

Week      Audit Dates

08-Feb

**Tuesday Feb. 9 - Pre-Audit 1: Route 2973**

**Building Group Sample 1**

2076 SHEROBEE RD  
2100 SHEROBEE RD  
2091 HURONTARIO ST  
2177 SHEROBEE RD  
2211 SHEROBEE RD  
2200 SHEROBEE RD  
2233 HURONTARIO ST  
2247 HURONTARIO ST  
2235 HURONTARIO ST  
2485 HURONTARIO ST

**Building Group Sample 2**

550 WEBB DR  
223 WEBB DRIVE  
250 WEBB DR  
335 WEBB DR  
156 ENFIELD PLACE  
1580 MISSISSAUGA VALLEY BLVD  
3590 KANEFF CRES  
3650 KANEFF CRES  
3695 KANEFF CRES  
3504 HURONTARIO ST

22-Feb

**Tuesday Feb. 23 - Pre-Audit 2: Route 2973**

**Building Group Sample 1**

2076 SHEROBEE RD  
2100 SHEROBEE RD  
2091 HURONTARIO ST  
2177 SHEROBEE RD  
2211 SHEROBEE RD  
2200 SHEROBEE RD  
2233 HURONTARIO ST  
2247 HURONTARIO ST  
2235 HURONTARIO ST  
2485 HURONTARIO ST

**Building Group Sample 2**

550 WEBB DR  
223 WEBB DRIVE  
250 WEBB DR  
335 WEBB DR  
156 ENFIELD PLACE  
1580 MISSISSAUGA VALLEY BLVD  
3590 KANEFF CRES  
3650 KANEFF CRES  
3695 KANEFF CRES  
3504 HURONTARIO ST

29-Feb

**Monday Feb. 29 - Post-Audit 1: Route 1973**

**Building Group Sample 1**

3 LISA ST  
4 LISA ST  
5 LISA ST  
8 LISA ST  
9 LISA ST  
11 LISA ST  
8 SILVER MAPLE COURT  
6 SILVER MAPLE COURT  
4 SILVER MAPLE COURT  
2 SILVER MAPLE COURT

**Building Group Sample 2**

3420 MORNINGSTAR DR  
3425 MORNINGSTAR DR  
7340 GOREWAY DR  
7350 GOREWAY DR  
7095 REXWOOD RD  
7110 DARCEL AVE  
7170 DARCEL AVE  
7230 DARCEL AVE  
7280 DARCEL AVE  
7405 GOREWAY DR

07-Mar

**Thursday March 10 - Pre-Audit 1: Route 4975**

**Building Group Sample 1**

16 JOHN ST E  
100 JOHN ST  
7900 McLAUGHLIN RD  
45 KING KNOLL DR  
7820 McLAUGHLIN RD  
300 RAY LAWSON BLVD  
20 CHERRYTREE DR  
54 MALTA AVE  
66 MALTA AVE  
6 SIR LOU DR  
4 SIR LOU DR  
40 COUNTY COURT BLVD  
100 COUNTY COURT BLVD

**Building Group Sample 2**

50 KINGSBRIDGE GRD CIRCLE  
4450 TUCANA COURT  
4470 TUCANA COURT  
4460 TUCANA COURT  
155 FORUM DR  
195 FORUM DR  
25 TRAILWOOD DR  
35 TRAILWOOD DR  
55 GLEN HAWTHORNE BLVD  
25 GLEN HAWTHORNE BLVD  
55 STRATHAVEN DR  
20 CEREMONIAL DR

28-Mar

**Tuesday March 29 - Post-Audit 1: Route 2973**

**Building Group Sample 1**

2076 SHEROBEE RD  
2100 SHEROBEE RD  
2091 HURONTARIO ST  
2177 SHEROBEE RD  
2211 SHEROBEE RD  
2200 SHEROBEE RD  
2233 HURONTARIO ST  
2247 HURONTARIO ST  
2235 HURONTARIO ST  
2485 HURONTARIO ST

**Building Group Sample 2**

550 WEBB DR  
223 WEBB DRIVE  
250 WEBB DR  
335 WEBB DR  
156 ENFIELD PLACE  
1580 MISSISSAUGA VALLEY BLVD  
3590 KANEFF CRES  
3650 KANEFF CRES  
3695 KANEFF CRES  
3504 HURONTARIO ST

04-Apr

**Monday April 4 - Post-Audit 2: Route 1973**

**Building Group Sample 1**

3 LISA ST  
4 LISA ST  
5 LISA ST  
8 LISA ST  
9 LISA ST  
11 LISA ST  
8 SILVER MAPLE COURT  
6 SILVER MAPLE COURT  
4 SILVER MAPLE COURT  
2 SILVER MAPLE COURT

**Building Group Sample 2**

3420 MORNINGSTAR DR  
3425 MORNINGSTAR DR  
7340 GOREWAY DR  
7350 GOREWAY DR  
7095 REXWOOD RD  
7110 DARCEL AVE  
7170 DARCEL AVE  
7230 DARCEL AVE  
7280 DARCEL AVE  
7405 GOREWAY DR



18-Apr **Thursday April 21 - Pre-Audit 2: Route 4975**

**Building Group Sample 1**

16 JOHN ST E  
100 JOHN ST  
7900 McLAUGHLIN RD  
45 KING KNOLL DR  
7820 McLAUGHLIN RD  
300 RAY LAWSON BLVD  
20 CHERRYTREE DR  
54 MALTA AVE  
66 MALTA AVE  
6 SIR LOU DR  
4 SIR LOU DR  
40 COUNTY COURT BLVD  
100 COUNTY COURT BLVD

**Building Group Sample 2**

50 KINGSBRIDGE GRD CIRCLE  
4450 TUCANA COURT  
4470 TUCANA COURT  
4460 TUCANA COURT  
155 FORUM DR  
195 FORUM DR  
25 TRAILWOOD DR  
35 TRAILWOOD DR  
55 GLEN HAWTHORNE BLVD  
25 GLEN HAWTHORNE BLVD  
55 STRATHAVEN DR  
20 CEREMONIAL DR

25-Apr **Friday April 29 - Pre-Audit 1: Route 5974**

**Building Group Sample 1**

1425 BODMIN RD  
2360 BONNER RD  
2345 TRUSCOTT DR  
2333 TRUSCOTT  
1201 WALDEN CIRCLE  
1110 WALDEN CIRCLE  
965 INVERHOUSE DR  
966 INVERHOUSE DR  
920 INVERHOUSE DR  
1055 SOUTH DOWN

**Building Group Sample 2**

3501 GLEN ERIN DR  
3455 GLEN ERIN DR  
2445 THE COLLEGE WAY  
2375 THE COLLEGE WAY  
2285 THE COLLEGE WAY  
2305 SOUTH MILLWAY  
2250 SOUTH MILLWAY  
1900 THE COLLEGE WAY  
1800 THE COLLEGE WAY  
1700 THE COLLEGE WAY

02-May **Monday May 2 - Post-Audit 3: Route 1973**

**Building Group Sample 1**

3 LISA ST  
4 LISA ST  
5 LISA ST  
8 LISA ST  
9 LISA ST  
11 LISA ST  
8 SILVER MAPLE COURT  
6 SILVER MAPLE COURT  
4 SILVER MAPLE COURT  
2 SILVER MAPLE COURT

**Building Group Sample 2**

3420 MORNINGSTAR DR  
3425 MORNINGSTAR DR  
7340 GOREWAY DR  
7350 GOREWAY DR  
7095 REXWOOD RD  
7110 DARCEL AVE  
7170 DARCEL AVE  
7230 DARCEL AVE  
7280 DARCEL AVE  
7405 GOREWAY DR

09-May **Tuesday May 10 - Post-Audit 2: Route 2973**

**Building Group Sample 1**

2076 SHEROBEE RD  
2100 SHEROBEE RD  
2091 HURONTARIO ST  
2177 SHEROBEE RD  
2211 SHEROBEE RD  
2200 SHEROBEE RD  
2233 HURONTARIO ST  
2247 HURONTARIO ST  
2235 HURONTARIO ST  
2485 HURONTARIO ST

**Building Group Sample 2**

550 WEBB DR  
223 WEBB DRIVE  
250 WEBB DR  
335 WEBB DR  
156 ENFIELD PLACE  
1580 MISSISSAUGA VALLEY BLVD  
3590 KANEFF CRES  
3650 KANEFF CRES  
3695 KANEFF CRES  
3504 HURONTARIO ST

16-May **Monday May 16 - Pre-Audit 1 for cart recycling routes 3 & 4**

**Building Group Sample 1**

3395 PONYTRAIL DR  
3401 PONYTRAIL DR  
1835 BLOOR ST  
1780 BLOOR ST  
1750 BLOOR ST  
3310 FIELDGATE DR  
1525 BLOOR ST  
3370 HAVENWOOD DR  
1465 TYNEBURN CR

**Building Group Sample 2**

2465 HURONTARIO ST  
2440 HURONTARIO ST  
2437 HURONTARIO ST  
2427 HURONTARIO ST  
25 PAISLEY BLVD W  
45 PAISLEY BLVD W  
65 PAISLEY BLVD W  
2323 CONFEDERATION PKWY  
2590 RUGBY RD

**Friday May 27 - Pre-Audit 2: Route 5974**

**Building Group Sample 1**

1425 BODMIN RD  
2360 BONNER RD  
2345 TRUSCOTT DR  
2333 TRUSCOTT  
1201 WALDEN CIRCLE  
1110 WALDEN CIRCLE  
965 INVERHOUSE DR  
966 INVERHOUSE DR  
920 INVERHOUSE DR  
1055 SOUTH DOWN

**Building Group Sample 2**

3501 GLEN ERIN DR  
3455 GLEN ERIN DR  
2445 THE COLLEGE WAY  
2375 THE COLLEGE WAY  
2285 THE COLLEGE WAY  
2305 SOUTH MILLWAY  
2250 SOUTH MILLWAY  
1900 THE COLLEGE WAY  
1800 THE COLLEGE WAY  
1700 THE COLLEGE WAY

23-May **Tuesday May 31 - Pre-Audit 1 for cart recycling routes 1 & 5**

**Building Group Sample 1**

110 ACORN PL  
1205 VANROSE ST  
1185 VANROSE ST  
820 SCOLLARD CT  
4235 SHERWOODTOWNE BLVD  
3700 KANEFF CR  
3665 ARISTA WAY

**Building Group Sample 2**

4640 KIMBERMOUNT AVE  
4900 GLEN ERIN DR  
4889 KIMBERMOUNT AVE  
4879 KIMBERMOUNT AVE  
4680 KIMBERMOUNT AVE  
2177 BURNHAMTHORPE RD W  
2155 BURNHAMTHORPE RD W  
3058 WINSTON CHURCHILL BLVD

06-Jun **Tuesday June 7 - Post-Audit 3: Route 2973**

**Building Group Sample 1**

2076 SHEROBEE RD  
2100 SHEROBEE RD  
2091 HURONTARIO ST  
2177 SHEROBEE RD  
2211 SHEROBEE RD  
2200 SHEROBEE RD  
2233 HURONTARIO ST  
2247 HURONTARIO ST  
2235 HURONTARIO ST  
2485 HURONTARIO ST

**Building Group Sample 2**

550 WEBB DR  
223 WEBB DRIVE  
250 WEBB DR  
335 WEBB DR  
156 ENFIELD PLACE  
1580 MISSISSAUGA VALLEY BLVD  
3590 KANEFF CRES  
3650 KANEFF CRES  
3695 KANEFF CRES  
3504 HURONTARIO ST

**Friday June 10 - Pre-Audit: Qualitative Survey FE Buildings**

**Building Group Sample 1**

20 PAISLEY BLVD W  
177 DUNDAS ST W  
2425 CONFEDERATION PKWY

**Building Group Sample 2**

70 PAISLEY BLVD W  
169 DUNDAS ST W  
2365 CONFEDERATION PKWY

13-Jun **Thursday June 16 - Post-Audit 1: Route 4975** **Rescheduled Date**

**Building Group Sample 1**

16 JOHN ST E  
100 JOHN ST  
7900 McLAUGHLIN RD  
45 KING KNOLL DR  
7820 McLAUGHLIN RD  
300 RAY LAWSON BLVD  
20 CHERRYTREE DR  
54 MALTA AVE  
66 MALTA AVE  
6 SIR LOU DR  
4 SIR LOU DR  
40 COUNTY COURT BLVD  
100 COUNTY COURT BLVD

**Building Group Sample 2**

50 KINGSBRIDGE GRD CIRCLE  
4450 TUCANA COURT  
4470 TUCANA COURT  
4460 TUCANA COURT  
155 FORUM DR  
195 FORUM DR  
25 TRAILWOOD DR  
35 TRAILWOOD DR  
55 GLEN HAWTHORNE BLVD  
25 GLEN HAWTHORNE BLVD  
55 STRATHAVEN DR  
20 CEREMONIAL DR

20-Jun **Monday June 20 - Pre-Audit 2 for cart recycling routes 3 & 4**

**Building Group Sample 1**

3395 PONYTRAIL DR  
3401 PONYTRAIL DR  
1835 BLOOR ST  
1780 BLOOR ST  
1750 BLOOR ST  
3310 FIELDGATE DR  
1525 BLOOR ST  
3370 HAVENWOOD DR  
1465 TYNEBURN CR

**Building Group Sample 2**

2465 HURONTARIO ST  
2440 HURONTARIO ST  
2437 HURONTARIO ST  
2427 HURONTARIO ST  
25 PAISLEY BLVD W  
45 PAISLEY BLVD W  
65 PAISLEY BLVD W  
2323 CONFEDERATION PKWY  
2590 RUGBY RD

27-Jun **Monday June 27 - Pre-Audit: Qualitative Survey Cart Buildings**

**Building Group Sample 1**

15 Elizabeth St N  
1015 Orchard Rd

**Building Group Sample 2**

49 Queen St E  
27 John St S

**Tuesday June 28 - Pre-Audit 2 for cart recycling routes 1 & 5**

**Building Group Sample 1**

110 ACORN PL  
1205 VANROSE ST  
1185 VANROSE ST  
820 SCOLLARD CT  
4235 SHERWOODTOWNE BLVD  
3700 KANEFF CR  
3665 ARISTA WAY

**Building Group Sample 2**

4640 KIMBERMOUNT AVE  
4900 GLEN ERIN DR  
4889 KIMBERMOUNT AVE  
4879 KIMBERMOUNT AVE  
4680 KIMBERMOUNT AVE  
2177 BURNHAMTHORPE RD W  
2155 BURNHAMTHORPE RD W  
3058 WINSTON CHURCHILL BLVD

04-Jul **Friday July 8 - Post-Audit 1: Route 5974**

**Building Group Sample 1**

1425 BODMIN RD  
2360 BONNER RD  
2345 TRUSCOTT DR  
2333 TRUSCOTT  
1201 WALDEN CIRCLE  
1110 WALDEN CIRCLE  
965 INVERHOUSE DR  
966 INVERHOUSE DR  
920 INVERHOUSE DR  
1055 SOUTH DOWN

**Building Group Sample 2**

3501 GLEN ERIN DR  
3455 GLEN ERIN DR  
2445 THE COLLEGE WAY  
2375 THE COLLEGE WAY  
2285 THE COLLEGE WAY  
2305 SOUTH MILLWAY  
2250 SOUTH MILLWAY  
1900 THE COLLEGE WAY  
1800 THE COLLEGE WAY  
1700 THE COLLEGE WAY

11-Jul	<b>Thursday July 14 - Post-Audit 2: Route 4975</b>	
	<b>Building Group Sample 1</b> 16 JOHN ST E 100 JOHN ST 7900 McLAUGHLIN RD 45 KING KNOLL DR 7820 McLAUGHLIN RD 300 RAY LAWSON BLVD 20 CHERRYTREE DR 54 MALTA AVE 66 MALTA AVE 6 SIR LOU DR 4 SIR LOU DR 40 COUNTY COURT BLVD 100 COUNTY COURT BLVD	<b>Building Group Sample 2</b> 50 KINGSBRIDGE GRD CIRCLE 4450 TUCANA COURT 4470 TUCANA COURT 4460 TUCANA COURT 155 FORUM DR 195 FORUM DR 25 TRAILWOOD DR 35 TRAILWOOD DR 55 GLEN HAWTHORNE BLVD 25 GLEN HAWTHORNE BLVD 55 STRATHAVEN DR 20 CEREMONIAL DR
18-Jul	<b>Monday July 18 - Post-Audit 1 for cart recycling routes 3 &amp; 4</b>	
	<b>Building Group Sample 1</b> 3395 PONYTRAIL DR 3401 PONYTRAIL DR 1835 BLOOR ST 1780 BLOOR ST 1750 BLOOR ST 3310 FIELDGATE DR 1525 BLOOR ST 3370 HAVENWOOD DR 1465 TYNEBURN CR	<b>Building Group Sample 2</b> 2465 HURONTARIO ST 2440 HURONTARIO ST 2437 HURONTARIO ST 2427 HURONTARIO ST 25 PAISLEY BLVD W 45 PAISLEY BLVD W 65 PAISLEY BLVD W 2323 CONFEDERATION PKWY 2590 RUGBY RD
01-Aug	<b>Wednesday August 3 - Post-Audit 1 for cart recycling routes 1 &amp; 5</b>	
	<b>Building Group Sample 1</b> 110 ACORN PL 1205 VANROSE ST 1185 VANROSE ST 820 SCOLLARD CT 4235 SHERWOODTOWNE BLVD 3700 KANEFF CR 3665 ARISTA WAY	<b>Building Group Sample 2</b> 4640 KIMBERMOUNT AVE 4900 GLEN ERIN DR 4889 KIMBERMOUNT AVE 4879 KIMBERMOUNT AVE 4680 KIMBERMOUNT AVE 2177 BURNHAMTHORPE RD W 2155 BURNHAMTHORPE RD W 3058 WINSTON CHURCHILL BLVD
	<b>Friday August 5 - Post-Audit: Qualitative Survey FE Buildings</b>	
	<b>Building Group Sample 1</b> 20 PAISLEY BLVD W 177 DUNDAS ST W 2425 CONFEDERATION PKWY	<b>Building Group Sample 2</b> 70 PAISLEY BLVD W 169 DUNDAS ST W 2365 CONFEDERATION PKWY
08-Aug	<b>Monday August 8 - Post-Audit: Qualitative Survey Cart Buildings</b>	
	<b>Building Group Sample 1</b> 15 Elizabeth St N 1015 Orchard Rd	<b>Building Group Sample 2</b> 49 Queen St E 27 John St S
15-Aug	<b>Thursday August 18 - Post-Audit 3: Route 4975</b>	
	<b>Building Group Sample 1</b> 16 JOHN ST E 100 JOHN ST 7900 McLAUGHLIN RD 45 KING KNOLL DR 7820 McLAUGHLIN RD 300 RAY LAWSON BLVD 20 CHERRYTREE DR 54 MALTA AVE 66 MALTA AVE 6 SIR LOU DR 4 SIR LOU DR 40 COUNTY COURT BLVD 100 COUNTY COURT BLVD	<b>Building Group Sample 2</b> 50 KINGSBRIDGE GRD CIRCLE 4450 TUCANA COURT 4470 TUCANA COURT 4460 TUCANA COURT 155 FORUM DR 195 FORUM DR 25 TRAILWOOD DR 35 TRAILWOOD DR 55 GLEN HAWTHORNE BLVD 25 GLEN HAWTHORNE BLVD 55 STRATHAVEN DR 20 CEREMONIAL DR
	<b>Friday August 19 - Post-Audit 2: Route 5974</b>	
	<b>Building Group Sample 1</b> 1425 BODMIN RD 2360 BONNER RD 2345 TRUSCOTT DR 2333 TRUSCOTT 1201 WALDEN CIRCLE 1110 WALDEN CIRCLE 965 INVERHOUSE DR 966 INVERHOUSE DR 920 INVERHOUSE DR 1055 SOUTH DOWN	<b>Building Group Sample 2</b> 3501 GLEN ERIN DR 3455 GLEN ERIN DR 2445 THE COLLEGE WAY 2375 THE COLLEGE WAY 2285 THE COLLEGE WAY 2305 SOUTH MILLWAY 2250 SOUTH MILLWAY 1900 THE COLLEGE WAY 1800 THE COLLEGE WAY 1700 THE COLLEGE WAY
22-Aug	<b>Monday August 22 - Post-Audit 2 for cart recycling routes 3 &amp; 4</b>	
	<b>Building Group Sample 1</b> 3395 PONYTRAIL DR 3401 PONYTRAIL DR 1835 BLOOR ST 1780 BLOOR ST 1750 BLOOR ST 3310 FIELDGATE DR 1525 BLOOR ST 3370 HAVENWOOD DR 1465 TYNEBURN CR	<b>Building Group Sample 2</b> 2465 HURONTARIO ST 2440 HURONTARIO ST 2437 HURONTARIO ST 2427 HURONTARIO ST 25 PAISLEY BLVD W 45 PAISLEY BLVD W 65 PAISLEY BLVD W 2323 CONFEDERATION PKWY 2590 RUGBY RD
05-Sep	<b>Wednesday September 7 - Post-Audit 2 for cart recycling routes 1 &amp; 5</b>	

**Building Group Sample 1**

110 ACORN PL  
 1205 VANROSE ST  
 1185 VANROSE ST  
 820 SCOLLARD CT  
 4235 SHERWOODTOWNE BLVD  
 3700 KANEFF CR  
 3665 ARISTA WAY

**Building Group Sample 2**

4640 KIMBERMOUNT AVE  
 4900 GLEN ERIN DR  
 4889 KIMBERMOUNT AVE  
 4879 KIMBERMOUNT AVE  
 4680 KIMBERMOUNT AVE  
 2177 BURNHAMTHORPE RD W  
 2155 BURNHAMTHORPE RD W  
 3058 WINSTON CHURCHILL BLVD

19-Sep **Monday September 19 - Post-Audit 3 for cart recycling routes 3 & 4**

**Building Group Sample 1**

3395 PONYTRAIL DR  
 3401 PONYTRAIL DR  
 1835 BLOOR ST  
 1780 BLOOR ST  
 1750 BLOOR ST  
 3310 FIELDGATE DR  
 1525 BLOOR ST  
 3370 HAVENWOOD DR  
 1465 TYNEBURN CR

**Building Group Sample 2**

2465 HURONTARIO ST  
 2440 HURONTARIO ST  
 2437 HURONTARIO ST  
 2427 HURONTARIO ST  
 25 PAISLEY BLVD W  
 45 PAISLEY BLVD W  
 65 PAISLEY BLVD W  
 2323 CONFEDERATION PKWY  
 2590 RUGBY RD

**Friday September 23 - Post-Audit 3: Route 5974**

**Rescheduled from Friday September 30**

**Building Group Sample 1**

1425 BODMIN RD  
 2360 BONNER RD  
 2345 TRUSCOTT DR  
 2333 TRUSCOTT  
 1201 WALDEN CIRCLE  
 1110 WALDEN CIRCLE  
 965 INVERHOUSE DR  
 966 INVERHOUSE DR  
 920 INVERHOUSE DR  
 1055 SOUTH DOWN

**Building Group Sample 2**

3501 GLEN ERIN DR  
 3455 GLEN ERIN DR  
 2445 THE COLLEGE WAY  
 2375 THE COLLEGE WAY  
 2285 THE COLLEGE WAY  
 2305 SOUTH MILLWAY  
 2250 SOUTH MILLWAY  
 1900 THE COLLEGE WAY  
 1800 THE COLLEGE WAY  
 1700 THE COLLEGE WAY

03-Oct **Tuesday October 4 - Post-Audit 3 for cart recycling routes 1 & 5**

**Building Group Sample 1**

110 ACORN PL  
 1205 VANROSE ST  
 1185 VANROSE ST  
 820 SCOLLARD CT  
 4235 SHERWOODTOWNE BLVD  
 3700 KANEFF CR  
 3665 ARISTA WAY

**Building Group Sample 2**

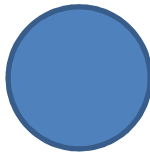
4640 KIMBERMOUNT AVE  
 4900 GLEN ERIN DR  
 4889 KIMBERMOUNT AVE  
 4879 KIMBERMOUNT AVE  
 4680 KIMBERMOUNT AVE  
 2177 BURNHAMTHORPE RD W  
 2155 BURNHAMTHORPE RD W  
 3058 WINSTON CHURCHILL BLVD

## **Appendix 4 - Targeted Inbound Audit Sample Taking**

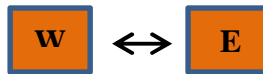
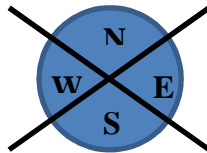
## TARGETED INBOUND AUDIT PROCEDURE

### SAMPLE TAKING

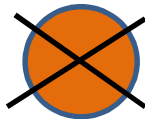
1. Scalehouse will notify the Audit Team when the truck has arrived on site and direct the truck to wait at the MRF stop sign for further instruction.
2. The Audit Team will co-ordinate with the Front-End Loader Operator which MRF door the truck may dump in. The Front-End Loader will clear the floor prior to the truck dumping the load.
3. The truck proceeds to dump in the designated MRF door. The Audit Team will place pylons in front of the door, so no other trucks dump in that door. The Audit Team will also place pylons in front of the adjacent door, so the Front-End Loader has room to Cone and Quarter the load.
4. The Front-End Loader proceeds to Cone and Quarter the load.
  - Front-End Loader mixes the front and back of the load into one pile.



- Front-End Loader splits the large pile into four smaller piles. Two of the piles are removed (ex. either North and South pile, or East and West).



- The remaining two piles are mixed together into a pile. This pile is then again split into four smaller piles. Two of the piles are once again removed.



- The remaining material is mixed together and sample is collected.



5. The sample must weigh a minimum of 100 kg. The Front-End Loader will fill the tip bin with approximately 1 to 2 scoops.

## **TARGETED INBOUND AUDIT PROCEDURE**

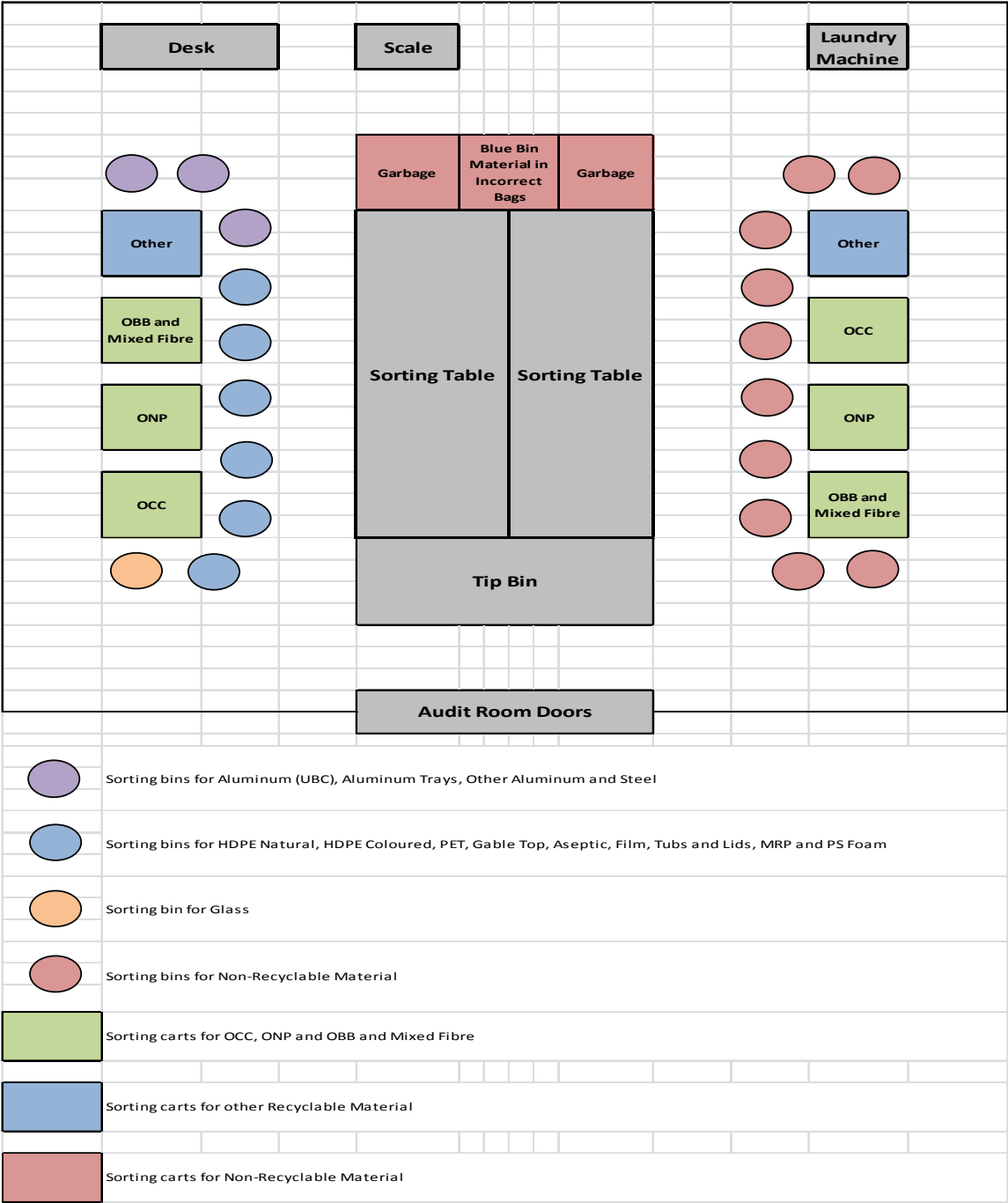
6. The Forklift Operator will move the tip bin into the MRF audit room to be weighed. The sample is weighed on the large floor scale.
7. If the sample is too light, additional material will be taken from the remaining sample pile. If the sample is acceptable, the remaining sample pile can be discarded back into the tip floor inventory.

### **SORTING THE SAMPLE**

1. The MRF audit room will be set up with two sorting tables placed in the centre of the room, in front of the tip bin.
2. The tip bin will be tipped forward until the lip of the tip bin rests on the sorting tables. A tip bin support beam will be wedged under the tipped portion of the bin to prevent it from falling back.
3. Once the tip bin is secured, sorting carts and bins are placed around the audit. Recyclable Materials are sorted on one side of the room and Non-Recyclable Materials are sorted on the other side of the room.
4. The Audit Team will manually rake or shovel the sample from the tip bin, onto the sorting tables. The material will be sorted into their corresponding sorting carts or bins. This will occur several times throughout the audit until the tip bin is completely empty. The tip bin will be swept clean and the swept material will be placed on the sorting tables for sorting.
5. Any material that has fallen onto the floor will be picked up, swept and / or sorted into the appropriate containers.
6. After sorting is complete, all of the material will be weighed, in kilograms using the small floor scale.
  - A sorting cart of material will be placed on the small floor scale. The material gross weight and sorting cart tare weight will be recorded on the audit record sheet.
  - If there is room left in the sorting cart, the small floor scale will be zeroed so that material from a sorting bin can be weighed on top of the existing material.
  - These steps will be repeated until all material has been weighed. Weighed material will be set aside until the recorded data is mass balanced (i.e. weight before sort matches weight after sort).

TARGETED INBOUND AUDIT PROCEDURE

AUDIT ROOM SET-UP





## TARGETED INBOUND AUDIT PROCEDURE

### LIST OF MATERIAL CATEGORIES

Commodity	Description	Guidelines
All containers have a greater than 50 mL and less than 5 L size restriction unless otherwise noted.		
<b>PLASTIC CONTAINERS</b>		
High Density Polyethylene (Natural)	Blow Molded Bottle, Jug or Jar HDPE (#2) with No Colour	No Injection Molded No Automotive Fluid No Herbicide/Pesticide
High Density Polyethylene (Coloured)	Blow Molded Bottle, Jug or Jar HDPE (#2) with Colour	No Injection Molded No Automotive Fluid No Herbicide/Pesticide
Polyethylene Terephthalate (PET)	Bottle, Jug or Jar PET (#1) with or without Colour	No Thermoform No Black Trays or Dishes
Gable Top	Triangle Top Carton	
Aseptic	Aseptic Carton	
Ice Cream Tubs	Fibre Ice Cream Tubs	No Injection Molded
Film	Bag, Sac or Overwrap	
Tubs and Lids	Injection Molded Snap Seal Tub or Lid HDPE (#2) or PP (#5)	
Mixed Rigid Plastic (MRP)	Tub, Lid, Bottle, Jug, Jar or Packaging <i>Hard Plastic Containers that Do Not Already Have a Specific Category</i>	No Black Trays
Mixed Rigid Plastic (MRP – Black and/or Brown)	Tub, Lid, Bottle, Jug, Jar or Packaging <i>Hard Plastic Containers that Do Not Already Have a Specific Category</i>	Black or Brown Only
PS Foam	Foam, Container or Packaging	No PS Foam Peanuts No Coloured PS Foam
<b>METAL CONTAINERS</b>		
Aluminum (Used Beverage Container)	Can or Bottle <i>Used Beverage Containers</i>	
Other Aluminum	Can, Bottle or Container <i>Food Containers or Aerosol</i>	
Aluminum Tray	Tray	
Steel	Can, Bottle, Aerosol, Tray or Spiral Wound	No Propane No Helium
Glass	Bottle, Jug or Jar Broken or Whole Clear, Amber or Green	Greater than 3/8 inch No Ceramic or Porcelain No Mirror Glass
<b>FIBRE</b>		
OCC	Corrugated Cardboard Brown Kraft Paper	Greater than 4 inch x 6 inch

## TARGETED INBOUND AUDIT PROCEDURE

<b>ONP</b>	Newsprint Magazines and Catalogues Office Paper	Greater than 4 inch x 6 inch
<b>OBB and Mixed Fibre</b>	Boxboard Molded Paper Mixed Paper	Greater than 4 inch x 6 inch
<b>NON-RECYCLABLES</b>		
<b>Garbage</b>	Garbage	Greater than 3/8 inch
<b>BB Material in Incorrect Bags</b>	Unacceptable Tied Bags with BB Material or a Combination of BB material and Non-Recyclable Material	Must not Separate when Lightly Shaken
<b>BB Material with Content</b>	BB Material with Contents of Substantial Weight	
<b>Film or MRP with Fibre Insert</b>	Unseparated Film or MRP with Fibre Insert	Must not Separate when Lightly Shaken
<b>Fused BB Material</b>	BB Material fused to BB Material and/or Non-Recyclable Material	Must not Separate when Lightly Shaken
<b>Black Garbage Bags</b>	Material in Tied Black Garbage Bags	
<b>Hot Cups</b>	Hot Take Out Cups	
<b>Other Polycoats</b>	Cold Take Out Cups and Other Polycoat Containers	
<b>Composite Packaging</b>	Multi-Materials Manufactured as One	
<b>Wrappers</b>	Non-Recyclable 'Crunchy' Wrappers	
<b>Debris</b>	Small Unidentifiable Material	Less than 3/8 inch
<b>15 L Water Bottles</b>	15 L Deposit/Return Water Bottles	
<b>Construction Material</b>	Wood, Drywall, Shingles, Etc	
<b>Scrap Metal</b>	Scrap Steel, Aluminum, Etc	
<b>Electronic Material</b>	Keyboards, Cellphones, Etc	
<b>Hard Plastics</b>	Large Plastic Toys, Containers, Etc	
<b>Textiles</b>	Shoes, Clothes, Pillows, Curtains, Etc	
<b>Motor Oil Containers</b>	Empty and/or Full Automotive Fluid Containers	Windshield Washer Fluid ONLY Acceptable in HDPE
<b>Household Hazardous Waste (HHW)</b>	Batteries, Florescent Bulbs, Biohazardous, Helium, Propane, Etc	
<b>Green Bin Material</b>	Napkins, Greasy Fibre, Food Waste, Hair, Dust, Q-Tips, Etc	

# TARGETED INBOUND AUDIT PROCEDURE

## AUDIT RECORD SHEET

### INBOUND AUDIT RECORD SHEET

AUDIT TYPE:	<u>Inbound FIMRP Audit</u>	START TIME:	<u>9:30am (11th)</u>
DATE:	<u>August 11, 2015</u>	BREAK START TIME:	<u>12:30pm (11th)</u>
SAMPLE TIME:	<u>9:40am (11th)</u>	BREAK FINISH TIME:	<u>1:10pm (11th)</u>
SAMPLE METHOD:	<u>core + quartered x 2</u>	FINISH TIME:	<u>4:10pm (11th)</u>
WEATHER:	<u>(HOT) or COOL (DRY) or RAIN or SNOW</u>	MATERIAL CONDITION:	<u>(DRY) or WET</u>
MATERIAL SORTED BY:	<u>Angela, Frankie, Edna, Alex</u>		
DATA RECORDED BY:	<u>Edna</u>		
SORT CHECKED BY:	<u>Melanie</u>		

CONTAINER MINIMUM: 50 mL - FIBRE MINIMUM: 4 INCHES x 6 INCHES

MATERIAL THAT PASSES THE 'SHAKE TEST' and MATERIAL IN CLEAN CLEAR BAGS SHOULD BE SORTED INTO AUDIT MATERIAL

MATERIAL	GROSS	TARE	NET	UNITS
SAMPLE MINIMUM 250 KG				
SAMPLE WHEN COLLECTED WEIGHT	687	436	251	
SAMPLE AFTER SORT WEIGHT	TOTAL ALL SECTIONS		250.90	
ONP, OFFICE PAPER, MAGAZINES, CATELOGUES, SOFT COVERS, ETC				
ONP (NEWSPRINT)	59.44	21.64	37.80	
ONP	53.10	21.74	31.36	
ONP				
ONP				
TOTAL ONP	69.16			
EARLIEST NEWSPAPER DATE:		July 30, 2015		
OCC, KRAFTPAPER, ETC				
OCC (CARDBOARD)	35.40	21.86	13.54	
OCC	39.24	21.14	18.10	
OCC				
OCC				
OCC				
TOTAL OCC	31.64			
OBB, MIXED FIBRE, ENVELOPES, JUNK MAIL, WRAPPING PAPER, ETC				
OBB/MIXED (BOXBOARD/MIXED)	40.26	21.44	18.82	
OBB/MIXED	33.02	21.88	11.14	
OBB/MIXED				
OBB/MIXED				
TOTAL OBB/MIXED	29.96			
FIBRE TOTAL				
130.76				

MATERIAL	GROSS	TARE	NET	UNITS
BLOW MOLDED BOTTLES, JUGS and JARS with NO PIGMENT				
HDPE [N] (HDPE - #2)			1.68	
BLOW MOLDED BOTTLES, JUGS and JARS with PIGMENT				
HDPE [C] (HDPE - #2)			4.16	
CLEAR or COLOURED BOTTLES and CONTAINERS - NO THERMOFORM				
PET (PET - #1)			9.38	
GABLE TOP CARTONS				
GABLE TOP (POLYCOAT)			2.00	
ASEPTIC CARTONS				
ASEPTIC (POLYCOAT)			0.90	
FIBRE ICE CREAM TUBS				
ICE CREAM TUBS (POLYCOAT)			0.50	
BAGS, OVER-WRAP, POUCHES or SACS - NO CRUNCHY WRAPPERS				
FILM			4.14	
INJECTION MOLDED TUBS and LIDS				
TUBS and LIDS (HDPE - #2 or PP - #5)			1.44	
MRP without PREVIOUS CATEGORY, PET THERMOFORM - NO BLACK or BROWN MRP				
MRP (MIXED RIGID PLASTIC)			5.64	
BLACK or BROWN MRP				
MRP (BLACK or BROWN)			0.70	
WHITE PS FOAM TRAYS, CONTAINERS or PACKAGING - NO PIGMENTED PS FOAM				
PS FOAM			0.64	
OTHER PLASTICS				
PLASTIC TOTAL	31.18			

# TARGETED INBOUND AUDIT PROCEDURE

MATERIAL	GROSS	TARE	NET	UNITS
ALUMINUM CONTAINERS or BOTTLES - USED BEVERAGE CONTAINERS				
ALUMINUM (UBC)			1.90	
OTHER ALUMINUM CONTAINERS - AEROSOLS, FOOD CANS, ETC				
OTHER ALUMINUM			0.38	
ALUMINUM TRAYS - NO ALUMINUM FOIL				
ALUMINUM TRAYS			0.08	
STEEL CONTAINERS, AEROSOLS or SPIRAL WOUND				
STEEL			6.92	
FLINT, AMBER or GREEN GLASS - BROKEN or WHOLE BOTTLES				
GLASS			13.64	
METAL & GLASS TOTAL				
			22.92	
BLUE BOX MATERIAL in GROCERY BAGS				
INCORRECTLY BAGGED			19.66	
BLUE BOX MATERIAL with CONTENTS				
RECYCLABLES with CONTENTS			5.88	
FILM or MRP with FIBRE INSERT				
FILM or MRP with FIBRE			3.12	
BLUE BOX MATERIAL FUSED with OTHER MATERIAL				
FUSED RECYCLABLES			4.26	
ORGANICS - FOOD, PAPER TOWELS, SHREDDED PAPER, GREASY PAPER, ETC				
GREEN BIN MATERIAL			3.44	
15L WATER BOTTLES				
15L WATER BOTTLES			0	
WOOD, DRYWALL, SHINGLES, RUBBLE, ETC				
CONSTRUCTION MATERIAL			1.12	
SCRAP METAL				
SCRAP METAL			0.38	
ELECTRONICS, SMALL APPLIANCES, ETC				
ELECTRONIC MATERIAL			0.50	
LARGE CHILDRENS TOYS, LARGE PILLS, CLOTHES HANGERS, ETC				
HARD PLASTICS			0.42	
CLOTHES, SHOES, TOWELS, BLANKETS, PILLOWS, CURTAINS, ETC				
TEXTILES			4.14	
MOTOR OIL CONTAINERS				
MOTOR OIL CONTAINERS			0	
BIOHAZARDOUS, PROPANE, HELIUM, BATTERIES, CHEMICALS, SHARPS, ETC				
HHW			0.06	

MATERIAL	GROSS	TARE	NET	UNITS
MATERIAL IN BLACK GARBAGE BAGS				
BLACK GARBAGE BAGS			0	
HOT TAKE OUT CUPS (ex. TIM HORTONS, MCDONALDS), ETC				
HOT CUPS			0.46	
OTHER POLYCOATS - COLD TAKE OUT CUPS (ex. MCDONALDS), ETC				
OTHER POLYCOATS			0.28	
COMPOSITE PACKAGING - ZIPPER POUCHES, MULTI-LAYER PACKAGING, ETC				
COMPOSITE PACKAGING			1.96	
WRAPPERS - CHIP BAGS, CANDY WRAPPERS, ETC				
WRAPPERS			0.72	
UNIDENTIFIABLE DEBRIS - SMALL FIBRE, DIRT, FINES, ETC				
DEBRIS			8.44	
NON-RECYCLABLE PACKAGING and OTHER GARBAGE				
GARBAGE	25.08	21.50	3.58	
GARBAGE	29.10	21.48	7.62	
GARBAGE				
TOTAL GARBAGE	11.20			
NON-RECYCLABLE TOTAL				
			66.04	


CONSTRUCTION MATERIAL INCLUDED:  
WOOD, SHINGLES  
ELECTRONIC MATERIAL INCLUDED:  
ELECTRONIC TOY  
HHW INCLUDED:  
SINGLE USE BATTERY

OTHER IMPORTANT NOTES:

## **Appendix 5 - Qualitative Research Report**



## Appendix 5 – Qualitative Research Project Report



**Region of Peel Multi-Residential “Recycle Right”  
Promotion and Education Campaign  
CIF Project # 895**

**Qualitative Research Project in Select Buildings  
Final Report – April 2017**



**McConnell Weaver Strategic Communications**

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This **Qualitative Research Project in Select Buildings Report** is a component of the Region of Peel's Multi-Residential Residue Management and Promotion & Education Campaign – Final Report – CIF Project # [895](#)



## 1. Introduction

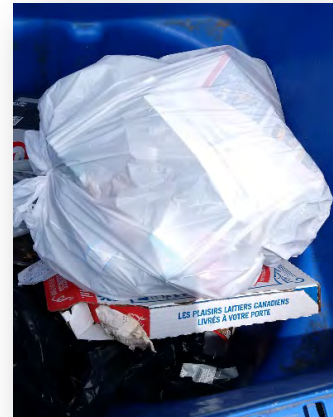
Near the end of May 2016, the Region of Peel and the Continuous Improvement Fund<sup>1</sup> (CIF) contacted McConnell Weaver Strategic Communications to signal the start of a project to provide communication consulting and program design and execution services for the Region's "Recycle Right" campaign.

Recycle Right aimed to inform and educate residents of multi-residential (MR) buildings about the need to change their recycling behaviour. These changes were desired to improve recycling performance and generate better quality recyclable materials at the collection stage of the recycling value chain. Specifically, the Region wanted to:

- reduce the use of grocery and garbage bags as a means of carrying recyclables to recycling carts and front-end bins and that were, to a large extent, being left in the carts and bins
- increase the capture of acceptable recyclables collected in recycling carts and front-end bins
- as a result of successful outcomes, reduce processing costs and increase revenues from recovered materials

The communication project design involved establishing a mechanism to conduct qualitative research (in-person surveys) with residents of a selection of multi-residential properties where the Region was undertaking the campaign.

The Region's seven-month Recycling Right campaign (February to August) was approaching the final three months of implementation (June, July and August) and the partners wished to implement a measurement component before the campaign ended.



## 2. Qualitative Research: Objectives, Design and Methodology

Essentially, the qualitative research objective involved conducting surveys using a pre-set questionnaire with residents of the selected "study" MR buildings before (pre) the delivery of P&E materials and then returning to conduct a second survey after (post) the campaign materials had been delivered. The P&E campaign materials provided by Peel included a:

- Reusable recycling bag describing the three easy steps to proper recycling on one side and displaying images of the acceptable materials on the opposite side
- Doorhanger with an attached magnet displaying acceptable materials
- Reminder door hanger (delivered two weeks after the bag/magnet combination)

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<sup>1</sup> CIF is providing funding support to the Region with the intention of identifying best practices that can guide other municipalities' MR initiatives.

The pre-campaign questionnaire established a benchmark data base of residents' recall of recyclable materials routinely recycled and awareness of any communication materials and activities that had taken place in the building, including delivery of Peel's annual Waste Guide, prior to the Recycle Right project. The post campaign survey tracked the differences in responses to the same questions. A copy of the pre-campaign questionnaire is provided in Appendix 5-B; the post-campaign questionnaire is provided in Appendix 5-C.

## 2.1 Objectives

The main objective of the research was to determine if the investment in hosting lobby displays in multi-residential buildings resulted in a correlative increase in desired recycling behaviour compared to the buildings that did not receive lobby display intervention. While Peel's campaign strategy included a significant program of pre and post waste composition audits, the qualitative research was intended to present residents' perspectives on their recycling behaviour before and after the Recycling Right campaign. In addition, the benchmark (pre) and tracking (post) qualitative research surveys were meant to assess the recall and motivational value of the campaign communications materials. The qualitative research objectives are outlined in the table below.

**Table 5-1 – Qualitative Research Objectives**

Objective	Materials	Recall of P&E	Use of Improper Bags	Adopting Proper Behaviour
Impact of Lobby Displays vs. No Lobby Displays	On awareness/recall of materials to be recycled	On recall of seeing/receiving P&E materials	On avoiding use of grocery and garbage bags as a means of carrying recyclables to the bins	On adopting use of reusable Recycle Right bags

## 2.2 Qualitative Research Project Design

Peel's methodology for conducting pre and post campaign waste composition audits in the qualitative research study involved grouping certain buildings on the same recycling collection routes into one category. Therefore, the original qualitative research plan involved selecting comparative study buildings that were included in the same waste composition audit route. In total, 12 buildings were to comprise the entire research study group. All would receive the campaign P&E educational materials but only half of the buildings would include additional intervention through a staffed lobby display.

Original Qualitative Research Plan
<b>Cart-based recycling: six (6) buildings</b> <ul style="list-style-type: none"> <li>3 that would include a staffed lobby display (consisting of one day for a total of three hours)</li> <li>3 that would not include a lobby display</li> </ul>
<b>Front-end bin recycling: six (6) buildings</b> <ul style="list-style-type: none"> <li>3 that would include a staffed lobby display (one day for a total of three hours)</li> <li>3 that would not include a lobby display</li> </ul>

However, due to a limited capacity to identify a full roster of study buildings according to this plan in the timeframe, the actual number of cart-based recycling buildings was reduced by one building in each category.

The actual breakdown of the study groups was as follows:

**Table 5-2: Number of Planned and Actual Buildings in Qualitative Research Study**

Type of Recycling	Originally Planned Number of Buildings	Intervention	Planned Number of Buildings Secured for Study	Actual Number of Buildings Secured for Study
Carts	6	No lobby display	3	2
		Lobby display	3	2
Front-End Bins	6	No lobby display	3	3
		Lobby display	3	3

### 2.2.1 Selecting Buildings for the Qualitative Research Study Group

In developing the strategy to select buildings for comparative study, the consultant provided the following list of characteristics to help in matching buildings:

- type: rental, condo, affordable living
- tenancy: stable or transient
- location: similar socio-economic level neighbourhood and building
- number of units
- building entrance: number of accesses to building, e.g., do most residents enter the building through the parking garage entry thereby by-passing the lobby or do most enter through the lobby?
- demography of residents
- type of recycling: carts or front-end bins; location of the bins (inside/outside, distance to travel to the bins, lighting, safety, etc. must be comparable in the study buildings)
- recycling education:
  - degree of interaction of the owners/operators/superintendents with residents about recycling, e.g., active vs. passive will result in varying resident behaviour
  - nature of communication materials residents may already have been given?



**Note:** for research projects where awareness, attitudes and behaviours are compared, study buildings, to the degree possible, should match up to eliminate variables that could skew results, for example, bins located inside are more accessible and therefore more convenient than bins located outside and at the opposite end of the parking lot.

Peel utilized available data to match buildings in the selection process as much as possible. To aid in understanding potential differences in post-campaign behaviour, the first step in the qualitative research project involved collecting data on the buildings that were identified as the study group (see Table 5-4: CIF/Peel Multi-Residential Qualitative Research Report -- Building Inventory Data on page 8).

### 2.2.2 Qualitative Research Design Components

The qualitative research project design comprised the following components:

1. **Building Inventory** – visit each of the study buildings to complete a building inventory. The Peel team undertook this inventory of each building using a pre-set form (see Appendix 5-A).
2. **Qualitative Research Resident Survey: Pre-P&E Campaign** – visit each building in the study group at a time of high traffic flow (determined by the building inventory) prior to the delivery of the P&E communication materials. Using a pre-set questionnaire (see Appendix 5-B), interview residents about their recycling knowledge, recall of recycling educational materials and recycling behaviour. The in-person survey had a version for respondents who said they recycled and an abridged version for those who said they did not recycle.
3. **Qualitative Research Resident Survey: Post-P&E Campaign** – visit each building in the study group at a time of high traffic flow following the delivery of the P&E communication materials, including the reminder card. Using a pre-set questionnaire (see Appendix 5-C), interview residents about their recycling knowledge, recall of P&E communication educational materials and recycling behaviour. The in-person survey had a version for respondents who said they recycled and an abridged version for those who said they did not recycle.
4. **Participation Incentive** – to encourage building residents to participate in the survey, the teams offered an incentive (either a pencil or a key chain) at the time of the pre and post interview.
5. **Alternative Option** – if a resident indicated they did not have time to participate in a survey, the Peel representative invited them to complete the survey at a time more convenient to them on-line or by telephoning a call-in number and answering the questions in sequence over the phone. To aid and prompt the potential respondent, these residents were given a postcard containing the pertinent information to connect online or by phone. A version of the pre and post questionnaires was set up on a commercially available online survey instrument; however, no one in the study buildings chose to use this alternative option.
6. **Building Inventory** – visit each of the study buildings to complete a building inventory. The Peel team undertook this inventory of each building using a pre-set questionnaire (see Appendix 5-A).

7. **Qualitative Research Resident Survey: Pre-P&E Campaign** – visit each building in the study group at a time of high traffic flow (determined by the building inventory) prior to the delivery of the P&E communication materials. Using a pre-set questionnaire (see Appendix 5-B), interview residents about their recycling knowledge, recall of recycling educational materials and recycling behaviour. The in-person survey allowed for respondents who said they recycled and an abridged questionnaire for those who said they did not recycle.
8. **Qualitative Research Resident Survey: Post-P&E Campaign** – visit each building in the study group at a time of high traffic flow following the delivery of the P&E communication materials, including the reminder card. Using a pre-set questionnaire (see Appendix 5-C), interview residents about their recycling knowledge, recall of P&E communication educational materials and recycling behaviour.
9. **Participation Incentive** – to encourage building residents to participate in the survey, the teams offered an incentive (either a pencil or a key chain) at the time of the pre and post interview.
10. **Alternative Option** – if a resident indicated they did not have time to participate in a survey, the Peel representative invited them to complete the survey at a time more convenient to them on-line or by telephoning a call-in number and answering the questions in sequence over the phone. To aid and prompt the potential respondent, these residents were given a postcard containing the pertinent information. A version of the pre and post questionnaires were set up on a commercially available online survey instrument; however, no one in the study buildings chose to use this alternative option.

#### **Prompt Postcard Providing On-line and Contact Information to Participate in the Survey**



## 2.3 Qualitative Research Methodology and Scheduling

McConnell Weaver developed a project implementation workplan establishing the timetable for each component in the qualitative research project. This workplan conformed to the schedule already established for the pre and post waste composition audits that Peel had previously set up.

### 2.3.1 Conducting Building Inventory

The first step in the research plan involved collecting building inventory data. In groups of two, the Peel team visited each study building and recorded building characteristics, including the arrangement of each building's recycling system (see a copy of the building inventory form in Appendix 5-A). A compilation of major data points is included in Table 5-4: CIF/Peel Multi-Residential Qualitative Research Report -- Building Inventory Data on page 8.

For three of the four buildings, the characteristics were fairly well matched in type (two rentals, two condos) and size, as well as the resident mix. However, a couple of the characteristics show variables that might affect established recycling knowledge and behaviour. All buildings but one have the recycling carts outside; in one building the carts are inside and therefore more convenient to reach. Established recycling behaviour in this building might be somewhat different than the others. Also, the presence of recycling information varies in the sets of buildings and in one, the prominent language spoken is not recorded. Unfortunately, the low number of completed surveys does not provide sufficient information to examine the potential impact of these variables more closely.

In the front-end set of buildings, the characteristics again were fairly well matched. Differences in recycling understanding and behaviour may have been present as a result of the prominent language in two of the six building being other than English (P&E are typically delivered in English only). However, this potential barrier was likely mitigated in the Recycle Right campaign through the use of graphics on the reusable recycling bag that demonstrate proper recycling behaviour. Perhaps the one illustration set that is missing and might be considered for future use is an image of a person about to drop a tied grocery bag showing recyclables peeking out the top into a cart or bin with an X through it; next to it is an image of a hand pulling recyclables out of the reusable bag and putting them into the cart or bin with a checkmark on it. The images currently on the reusable bag are close to this depiction but not quite as precise.

### 2.3.2 Team Training

Prior to the teams entering the study buildings to implement the in-person surveys, McConnell Weaver conducted a training workshop to review the survey questionnaire and discuss how to conduct an interview and when to use the prompt post card. The teams practiced intervention and interview techniques with fellow members.

Table 5-3: CIF/Region of Peel Multi-Residential Research Project -- Workplan

CIF/Region of Peel Multi-Residential Research Project -- Workplan												
Version 4: July 28, 2016												
Classifica- tion	No. of Build- ings	Types	Building Intervention	Collect Building Details	Team Q&Q Train- ing	Pre Waste Comp. Audit	Pre Qualitative Survey	Materials Distri- buted	Lobby Display	Prompt: Reminder Door Hanger	Post Qualitative Survey	Post Waste Comp. Audit
Team				w/o June 6*	09-Jun							
Building Implementation												
Front-end Load	3	2 rental 1 affordable	Comms Mtls only			Fri. June 10; matis aggregated for audit	Thurs. June 16; Friday, June 17	w/o June 20		w/o July 11	July 28 & 29	Revised to August 5
	3	2 rental 1 affordable	Comms Mtls	Plus lobby display		Fri. June 10; matis aggregated for audit	Thurs. June 16; Friday, June 17	w/o June 20	w/o June 27	w/o June 11	July 28 & 29	Revised to August 5
Carts	2	1 condo 1 rental	Comms Mtls only			Mon. June 27; matis aggregated for audit	Tues. July 5	w/o July 11		w/o Aug 1	19-Aug	08-Aug
	2	1 condo 1 rental	Comms Mtls	Plus lobby display		Mon. June 27; matis aggregated for audit	Tues. July 5	w/o July 11	w/o July 18	w/o Aug 1	19-Aug	08-Aug
Control												
3 buildings matching demographics that get no Q&Q intervention												

\*Contact owners/operators/superintendents to collect information/conduct site visits/take photos



Region of Peel Multi-Residential Qualitative Research Project

**Table 5-4: CIF/Peel Multi-Residential Qualitative Research Report -- Building Inventory Data**

CIF/Peel Multi-Residential Qualitative Research Report -- Building Inventory Data												
Project Service	Address	Type	Floors	Units	Garbage Chute Inside	Recycling Inside (I); Outside (O)	Signage at Recycling Area/On Bins	Recycling Area Clean	Residents: Young (Y) Singles (S) Families (F) Working (W) Retired (R)	Major Language	Long Term (L) Short Term (S)	Recycling Info from Bldg Super
Carts/Lobby Display	15 Elizabeth	condo	10	48	Yes	O	Bin only	Yes	Y/S/F/R	?	L	Yes, 2-4 years
	1015 Orchard	rental	7	56	No	O	No	Yes	S/F/R	English	L	Yes, what Peel provides
	Compared to:											
Carts/No Lobby Display	27 John	rental	5	35	No	O	No	Yes	S/R/W	English	L	No
	66 High St	condo	13	48	?	I	Yes	Yes	S/R	English	?	Yes, what Peel provides
Front End Bins - Lobby Display	20 Paisley	Rental	8	94	Yes	O	No	Yes	Y/S/F/W	English	L	Yes
	177 Dundas West	Peel Lvg*	10	161	Yes	O	Yes	Yes	R	English	L	Yes to new residents
	2425 Confederation Pky	Rental	6	60	Yes	O	Yes on bin	Yes	Y/S/F/W/R	Spanish, Polish, Chinese	L	No
	Compared to:											
Front End Bins - No Lobby Display	70 Paisley	Rental	9	84	Yes	O	No	No	Y/S/F/W	Asian	S	Yes to new residents
	169 Dundas West	Peel Lvg*	13	121	Yes	O	Yes on bin	Yes	S/F/W/R	English	L	Y
	2365 Confederation Pky	rental	10	78	Yes	O	No	Yes	Y/S/F/W	English	S	Yes, every year
* Peel Living (affordable)		? Means question not completed										



### 2.3.3 Conducting Survey Interviews – Pre and Post

Implementing the pre and post surveys in each of the study buildings meant scheduling them according to the other related activities. Specifically:

- The pre-P&E campaign survey had to take place after the pre-campaign waste composition audit, so any possible change in behaviour (caused by the intervention) would not impact audit results and before the delivery of the Recycle Right P&E materials so the data collected would establish a benchmark;
- Delivery of the Recycle Right P&E materials followed the completion of the pre-campaign survey. The P&E materials consisted of the reusable bag, doorhanger and magnet, followed two weeks later by the reminder card.
- Next the staffed lobby display took place in designated lobby display buildings.
- The post-P&E campaign survey followed the delivery of the P&E materials and the lobby display but took place before the final post-campaign waste composition audit.

The scheduling dates are included in Table 5-3: CIF/Region of Peel Multi-Residential Research Project – Workplan on page 7.

### 2.3.4 Number of Completed Questionnaires

The target for completed questionnaires per building was 20. The total combined number in each study group would provide sufficient data to permit comparing results. Unfortunately, due to scheduling constrictions, teams could attend buildings to conduct surveys for only a three-hour period on one occasion only. While teams were asked to select periods when high traffic flow could be expected, typically late afternoon as residents arrived home from work when they would have potentially a few spare moments, with one exception target survey completions were not reached. In a few cases the number of completed responses was very low.

**Table 5-5: Qualitative Research Surveys – Completed Responses**

Address	Number of Units	Number of Completed Surveys Pre Campaign/Target 20	Number of Completed Surveys Post Campaign/Target 20
15 Elizabeth	48	3	2
1015 Orchard	56	12	8
27 John	35	10	14
66 High	48	4	5
70 Paisley	94	18	9
169 Dundas West	161	8	4
2365 Confederation Pky	60	18	19
20 Paisley	84	16	7
177 Dundas West	121	21	17
2425 Confederation Pky	78	14	9
<b>Total completed surveys</b>		124 of targeted 200 (62%)	94 of targeted 200 (47%)

### 3. Qualitative Research Survey Results

As noted in the previous pages, the Region organized waste composition audits by building groups, as follows:

Cart Recycling	Group One	Lobby Display	15 Elizabeth 1015 Orchard
	Group Two	No Lobby Display	27 John 66 High
Front-End Bin Recycling	Group Three	Lobby Display	20 Paisley 177 Dundas West 2425 Confederation Pky.
	Group Four	No Lobby Display	70 Paisley 169 Dundas West 2365 Confederation Pky.

To relate survey data to the results of the waste composition audits, survey findings have been organized according to these groups.

#### 3.1 Cart Recycling – Results Comparing Lobby Display vs. No Lobby Display

In the four study buildings using carts for recyclables, the two buildings where the P&E activities included a lobby display (Group One) were compared to the two buildings that did not include a lobby display (Group Two).

These groups had a combined low survey completion rate of 15 out of a target 40; therefore, concrete conclusions cannot be drawn from this information set.



**Note 1:** the survey questionnaires provided for some questions to be answered “unaided” from recall, followed by “aided” questions where the respondents were given answers and asked if it helped their recall. **Note 2:** an abridged version of the questionnaire was created for people who said they did not recycle. None of these were used in the cart-based program. **Note 3:** as this is a qualitative survey process, statistical data is generally not applicable; however, due to the low number of completed surveys, results are not conclusive and actual numerical results are inadvisable.

#### Cart-Based Qualitative Study Buildings – Survey Summary

Major Information Points	Lobby Display Group	No Lobby Display Group	Observations
<b>Unaided and aided recall of the range of recycling materials regularly recycled</b>	No discernable difference in the unaided and aided recall of the materials regularly recycled before and after the delivery of the P&E materials.	There is a slight increase in the unaided recall of the materials regularly recycled after the delivery of the P&E materials compared to before; however, this difference may be due to an interviewer inconsistency in the completion of the questionnaires.	It would appear the presence of the new P&E materials did not affect the unaided or aided recall of the range of recycling materials respondents regularly recycled.
<b>Change in behaviour using plastic/grocery bags</b>	A small number of respondents were recorded on this questions pre and post the delivery of the P&E materials but it would appear a shift in the use of improper bags to the reusable bag occurred.	A definite shift in behaviour away from using improper bags toward adopting the Recycle Right bag pre and post the P&E campaign is apparent.	Reported behaviour shows a definite change away from using grocery/garbage bags to using the Recycle Right reusable bags
<b>Pre-Recycle Right campaign recall of P&amp;E materials in building</b>	The small number of respondents included in these surveys could recall some recycling education materials in their building before the Recycle Right campaign. A poster was mentioned by a few people.	Half of the respondents recalled seeing some recycling educational materials before the Recycle Right campaign. A few respondents mentioned a poster, the Peel Waste Guide and information that came by mail.	Awareness of P&E materials in the building before the Recycle Right campaign was characteristically low among respondents. Given the reported low level of recycling education provided by building management, this is not a surprising finding.

Major Information Points	Lobby Display Group	No Lobby Display Group	Observations
<b>Post-Recycle Right campaign recall of P&amp;E materials in building</b>	The small number of survey respondents in the lobby display group in the post-campaign survey showed no significant increase in recall of Recycle Right materials.	A significant number of respondents in the cart no lobby display group recalled seeing recycling education materials in the building recently.	Although the small number of respondents surveyed in the cart lobby group inhibits drawing conclusions, the responses of those who were interviewed combined with the positive answers from most respondents in the no lobby group suggests the campaign materials had a positive impact on recycling awareness.
<b>Post-Recycle Right campaign unaided and aided recall of the materials that comprised the P&amp;E package</b>	This small group of respondents clearly recalled having seen P&E materials when asked aided questions. The reusable bag ranked highest, followed by the magnet.	The respondents in the no lobby display group had a very strong unaided recall of all the P&E materials, including the reusable bag, information card, magnet and reminder card.	From the unaided response of the no lobby display group and the aided response of the small lobby display group, it is clear the P&E materials had a positive impact on awareness.
<b>Recall of the Recycle Right campaign name</b>	A few respondents remembered the Recycle Right name when aided.	Consistent with the lobby display group, only a few respondents could recall the Recycle Right name of the campaign.	For these two groups of respondents, the Recycle Right name did not make a lasting impression as a brand.
<b>Shift recycling behaviour to proper reusable bags as an outcome of the P&amp;E campaign</b>	Of the number of respondents who answered this question, most said they had started using the reusable bag after receiving the P&E materials.	All but two of the respondents in the no lobby display group said they had started using the reusable bag after receiving the P&E materials.	For the group of respondents that utilize their buildings' cart systems to recycle, the reusable bags appear to have achieved the desire outcome.
<b>Was the information contained on the bag easy to understand; helpful and educational and helpful in reducing the number of bags used?</b>	Almost all respondents chorused agreement that the bags were easy to understand, helpful and educational and resulted in the use of fewer improper	There was almost universal agreement with the three characteristics (ease of understanding, helpful/ educational and helped reduce the use of	Clearly, being given the reusable bag as a tool to help residents recycle was appreciated and believed to be a major

Major Information Points	Lobby Display Group	No Lobby Display Group	Observations
	grocery and garbage bags.	improper bags) among the no lobby display group, too.	reason why residents had shifted from using improper bags.
<b>Helpful in recycling more materials</b>	When it came to recycling more materials with the new reusable bags and the prompts, lobby display respondents thought they were recycling “about the same” amount.	The no lobby group respondents were more divided, with half reporting they were recycling more while the other half felt it was about the same, and a few were unsure if they were recycling more or not.	Some respondents report they believe they are recycling more. It appears at face value, the combination of educational information and the reward of giving respondents a tool likely has translated into more recycling for some.
<b>Recall seeing a staffed lobby display in the building recently</b>	Of the small number of respondents who completed surveys in the cart lobby display group, a few recalled seeing the display and a couple of people said they spoke to the display representative.	Of the no lobby display group, respondents in both buildings had a comparatively large number of people recalling a recent lobby display, even though they should not have; plus, a representative number reported talking to display representatives.	The survey called for questions about the lobby display to be skipped in no lobby display buildings. Interview error resulted in the questions being asked and a positive response given, even though the buildings in question were not in the lobby display sub-category. Peel representatives ascribe this response to having recall of a lobby display at a different time for a different reason.

Other observations of the cart-based programs are:

- The receipt of the recycling bags did not appear to change behaviour in how frequently respondents took recyclables to the carts.
- The most common complaints about the recycling area were that the carts needed to be emptied more frequently and that other people consistently put unacceptable materials into the bins. These observations were commonly mentioned across all sub-categories of both cart and front-end buildings.

### 3.1.1 Summary of Survey Results – Lobby Display vs. No Lobby Display in Four Cart-based Buildings

- The lack of robust survey information resulting from having only two buildings each in the cart-based lobby display/no lobby display categories coupled with the low number of completed surveys in the lobby display impacted the ability to make reasonable observations about the cost-benefit of providing intervention through a staffed lobby display.
- Clearly the strategy of providing communication materials that pointed the way to proper recycling was welcomed, remembered and caused a positive response to the call to action: most respondents reported they had, for the most part, adopted the desired behaviour of reducing or not using the improper grocery bags.

### 3.2 Front-End Bin Recycling – Results Comparing Lobby Display vs. No Lobby Display

In the six study buildings using front-end bins for recyclables, the three buildings where the P&E activities included a lobby display (Group Three) were compared to the three buildings that did not include a lobby display (Group Four).

The study buildings appear to be closely matched with only a few variables that might have resulted in disparities potentially impacting recycling behaviour. In some buildings, the front-end loaders displayed a decal showing sorting instructions; in others, the bins appear to have no decals. The population mix in all but one building appears similar; however, in one building, the residents are largely retired.





The front-end lobby display and no lobby display groups had a combined higher survey completion rate than the cart-based buildings: of 79% for pre surveys and 54% for post surveys compared to 41% for pre and 36% for post in the cart-based program; therefore, creating a better pool of data on which to make observations.

**Note 1:** the survey questionnaires provided for some questions to be answered “unaided” from recall, followed by “aided” questions where the respondents were given answers and asked if it helped their recall. **Note 2:** there appeared to be no significant difference in the responses of those who recycled and the few who said they did not recycle. **Note 3:** as this is a qualitative survey process, statistical data is generally not applicable; however, due to the low number of completed surveys, results are not conclusive and actual numerical results are inadvisable.

#### Front-End Bin-Based Qualitative Study Buildings – Survey Summary

Major Information Points	Lobby Display Group	No Lobby Display Group	Observations
<b>Unaided and aided recall of the range of recycling materials regularly recycled</b>	There was no discernable difference in the unaided and aided recall of the materials regularly recycled before and after the delivery of the P&E materials.	There is a discernable increase in the unaided recall of the materials regularly recycled after the delivery of the P&E materials compared to before; however, this difference may be due to an interviewer inconsistency in the completion of the questionnaires.	It would appear the presence of the new P&E materials did not affect the unaided or aided recall of the range recycling materials respondents regularly recycled.
<b>Change in behaviour using plastic/grocery bags</b>	A definite shift in behaviour away from using improper bags toward adopting the Recycle Right bag is apparent.	A definite shift in behaviour away from using improper bags toward adopting the Recycle Right bag is apparent.	Reported behaviour shows a definite and very strong change in the use of grocery/garbage bags to using the Recycle Right reusable bags in both groups.
<b>Pre-Recycle Right campaign recall of P&amp;E materials in building</b>	Recall of seeing recycling education materials in their building before the Recycle Right campaign was mixed. About half of the respondents in the entire group reported seeing some materials. The most commonly mentioned item was a poster (this	Similarly, to the lobby display group, about half of the respondents recalled seeing some recycling educational materials before the Recycle Right campaign. Mirroring the lobby display group, this group mentioned a poster and the Waste Guide.	This combined group of lobby display and no lobby display respondents were much more aware of recycling P&E materials being in the building. By far the highest recall is of a poster. This could be the Peel recycling label that is present on many bins.
Major Information	Lobby Display Group	No Lobby Display	Observations



Region of Peel Multi-Residential Qualitative Research Project

Points		Group	
	could be bin signage). A few recalled the Peel Waste Guide.		In comparison, not many carts in the study group appear to exhibit a recycling label.
<b>Post-Recycle Right campaign recall of P&amp;E materials in building</b>	After the delivery of the P&E campaign materials, a significant majority of respondents in lobby display buildings recalled seeing Recycle Right materials.	About half of the respondents in the no lobby display group recalled seeing recycling education materials in the building after campaign execution.	The same observation can be made in the front-end bin group as the cart group: awareness of the campaign materials was strong.
<b>Post-Recycle Right campaign unaided and aided recall of the materials that comprised the P&amp;E package</b>	As with the cart-based buildings, the most easily remembered items were the reusable bag and the magnet. The reminder card came in third.	Again, the bag, magnet and the reminder card took first, second and third.	From the response of both groups, it is clear the nature of the P&E materials made an positive impact on awareness and recall.
<b>Recall of the Recycle Right campaign name</b>	Only a few respondents in the lobby display group could recall the Recycle Right name unaided. Recall increased slightly when aided.	Consistent with the lobby display group, only a few respondents could recall the Recycle Right name of the campaign unaided and the number increased slightly when aided.	For these two groups of respondents, the Recycle Right name did not make a lasting impression.
<b>Shift recycling behaviour to proper reusable bags as an outcome of the P&amp;E campaign</b>	Almost all the respondents reported they had started using the reusable bag.	As with the lobby display group, almost everyone in this group said they had started using the reusable bag.	For the group of respondents that utilize their buildings' front end bin system to recycle, the reusable bags appear to have achieved the desired outcome.
<b>Was the information contained on the bag easy to understand; helpful and educational and helpful in reducing the number of bags used?</b>	Almost all respondents agreed the information on the bags was easy to understand, helpful and educational and resulted in the use of fewer improper grocery and garbage bags.	A modest majority of the respondents in the no lobby display group agreed the information on the bags was easy to understand and helpful. Fewer agreed it was helpful in reducing the number of bags used.	As with the cart-based program, respondents in the front-end bin groups responded positively to the reusable bag as a tool to help them recycle. It appears to be a major reason why they had shifted from using improper bags.
Major Information	Lobby Display Group	No Lobby Display	Observations

Points		Group	
<b>Helpful in recycling more materials</b>	A significant number of people in the lobby display group reported they thought the bags were helping them to recycle more materials.	About half of the respondents in the no lobby display group reported they were recycling more while the other half felt it was about the same.	As with the cart-based group, the audit results suggest increases in recycled materials. Therefore, the combination of reminder information and the reward of giving respondents a tool likely has translated into more recycling for some.
<b>Recall seeing a staffed lobby display in the building recently</b>	About half of the respondents who answered this question in the survey report they recalled seeing a staff lobby display recently and half of those said they spoke to the display representatives.	Respondents in the no lobby display group were not asked this question.	

Other observations of the cart-based programs are:

- The receipt of the recycling bags did not appear to change behaviour in how frequently respondents took recyclables to the front-end bins.
- The most common complaints about the recycling area were that the bins needed to be emptied more frequently and more recycling information is needed on/around them.
- The respondents who said they do not recycle cited laziness and lack of sufficient materials as the primary reasons for not participating in the program. Compared to the total number of completed surveys, the surveys attributable to “non-recyclers” was low, in the single digits.

### 3.2.1 Summary of Survey Results – Lobby Display vs. No Lobby Display in Six Front-End Bin Buildings

- As with the cart-based groups, the qualitative research findings in the front-end bin group showed that using P&E tools like the reusable bag and magnet led most respondents to act on the call to action: they reported they had, for the most part, adopted the desired behaviour of reducing or not using improper grocery bags to carry recyclables to the bins, and they reported they had adopted the new behaviour of using the reusable bags.



### 3.3 Enhanced P&E Intervention – Does it Pay Off?

Is the investment in MR resident intervention/motivation returned in improved behaviour compared to a basic program of delivering a reusable bag, magnet and reminder card? While the qualitative research survey results were limited because of the low number of completed questionnaires, it can be noted that:

- Respondents in both the lobby display and no lobby display groups reported significant behavioural change by dropping use of improper, e.g., grocery bags, and starting to use the reusable bags.
- Respondents in both groups had equally strong recall of the tools provided in the P&E campaign kit.
- Respondents in both groups show no appreciable difference in their recall of the recyclable materials they habitually recycle.

The results of this qualitative research project are limited by the fewer than planned participating buildings and lower number of completed questionnaires; therefore, a definite conclusion cannot be drawn. At face value, however, comparing results ONLY to the audits for the study buildings, they do not appear to support that the investment in lobby displays enhanced the desired outcomes.

## 4. Challenges Encountered in Planning and Execution of the Qualitative Research and Suggested Solutions

- The qualitative research project was launched well past the half-way point of Peel's overall campaign with the result that the selection of the required number of buildings was impacted.

The scheduling also affected the time available to conduct proper team training and to complete the required number of surveys in each building. Including and planning for a research/measurement component in projects such as Peel's Recycle Right campaign to assess the effectiveness and cost-efficiency of various tactical initiatives is to be applauded. The best results will be derived from including detailed planning from the outset and developing scheduling that allows for the research to be fully completed.

- While the project start-up lacked good building intelligence, e.g., demographics, access to recycling area, necessary to select multi-residential properties that were characteristically similar, the selection of similar buildings in the Peel project turned out to be fairly close, as borne out by the building inventory results. Knowing and or collecting building statistics to aid in the selection of similar buildings is important when conducting comparative A/B study and analysis.
- Half of the qualitative research work, specifically the post survey, was conducted during July/August when the availability of potential respondents may have been impacted by vacations. Scheduling of similar activities either need to take seasonality into consideration or allow flexibility to address such problems.
- The data pool was affected by the number of surveys completed. This challenge could not be addressed because of the tight end-of-campaign schedule.

#### 4.1 Best Practice Tips to Help Design and Implement Qualitative Research in MR Buildings

1. **Timing and Planning** – design P&E campaigns to include qualitative and quantitative research measurement components from the outset. This may include designing campaigns to conduct pre-campaign benchmark research before any other intervention takes place.
2. **Professional Services** – acquire assistance from a professional experienced in conducting research to help design and assess research components, even if the assistance is in the way of contracting for advice a few hours a week.
3. **Building inventory** – compile an inventory of building characteristics so that when comparative research is to take place, the A/B buildings are as similar as possible, eliminating variables that could be impact comparisons.
4. **Training and retraining** – if the survey interview team is not experienced, set up training exercises at stages throughout the campaign to ensure continuous quality control.
5. **Scheduling** – set up interview schedules in building at time when there is the highest degree of residents traffic; e.g., in buildings where the majority of residents are workers, set up during the hours when people are returning home from work; in buildings where the residents are primarily retired, set up interventions during social gathering times.

6. **Access Points** -- Position interviewers at key access points: lobby entrance, entrance from outside parking, underground parking entrance to elevators to intercept residents at high traffic points.
7. **Meeting Targets** – Allow time to return to buildings as many times as necessary to acquire critical numbers of responses.
8. **Quality Control** – Establish a mechanism to conduct quality control on surveys to ensure the interviews and the questionnaires are completed properly.
9. **Digital Survey Tools** – If feasible, use electronic technology, e.g., tablets, to complete questionnaires and aggregate data (can be accomplished setting up questionnaires on commercially available survey instruments).

This report prepared for the Region of Peel and the Continuous Improvement Fund (CIF) by:

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## **Appendix 5-A – Building Inventory Form**

### **CIF/Region of Peel Multi-Residential Research Project**

#### **Building Inventory**

##### **Situation**

For the purposes of developing a data base of the characteristics for each of the multi-residential (MR) buildings in the study group, we will collect information that will provide a foundation for the later analysis of the research results.

##### **Methodology**

The data will be collected by the Region of Peel MR team between Tuesday, June 7 and Thursday, June 16<sup>th</sup> using contact by telephone and site visits. The team members will compile data using the form provided below to ensure all the data collected for each building is similar.

In addition to empirical data, the team members will take photos of key building characteristics. The list is included on the data collection form.

##### **Questions**

Suggestions, comments or questions can be directed to:

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Research Project Manager  
[mcweav@kos.net](mailto:mcweav@kos.net)  
613-471-1816

**CIF/Region of Peel Multi-Residential Research Project**

**Building Inventory – Data Collection**

1. Building Address (*use excel*):

\_\_\_\_\_

2. Front end bins ☐ Carts ☐

3. Type: Condo ☐  
Rental ☐  
Peel Living ☐

4. No. of Units: \_\_\_\_\_ No. of Floors: \_\_\_\_\_

5. Communication Material Only: ☐ Communication Material & Lobby Display: ☐

6. Building entry (*check all that apply*):

- Front lobby ☐ Ground level parking/back door entry ☐  
Back entry ☐ Underground parking/access to elevators ☐  
Side entry ☐

7. Can residents can access parking/their units bypassing the main lobby? Yes ☐ No ☐

8. Is the mail room located off main lobby? Yes ☐ No ☐

9. Is the recycling area...? Inside the building ☐ Outside the building ☐

Describe how it is accessed (e.g., elevator, below lobby, down hallway, inside closed room; walk across parking lot): \_\_\_\_\_

\_\_\_\_\_

10. Is the recycling area sheltered? Yes ☐ No ☐

Describe shelter/room: \_\_\_\_\_

11. Is the recycling area well lighted 24/7? Yes ☐ No ☐

12. Does the recycling area have information signage? Yes ☐ No ☐

11. Is the recycling signage clear, easy to understand and in good condition? Yes ☐ No ☐

13. Is the recycling signage in languages other than English? Yes ☐ No ☐
14. Is the recycling area clean and well presented? Yes ☐ No ☐
15. Is the bin/are the carts... full ☐ partially full ☐ empty ☐ ?
16. How many days to the next recycling picked up? \_\_\_\_\_
17. Is there a garbage chute in the building? Yes ☐ No ☐
18. Are garbage and recycling receptacles placed in the same location? Yes ☐ No ☐
18. Describe the residents:
- majority young singles and young families \_\_\_\_\_
  - majority retired couples and singles \_\_\_\_\_
  - majority working professionals \_\_\_\_\_
  - majority shift workers \_\_\_\_\_
  - majority families of different ethnic backgrounds \_\_\_\_\_
  - majority speak English \_\_\_\_\_
  - majority speak another language \_\_\_\_\_ ; which language \_\_\_\_\_
  - majority go to work \_\_\_\_\_ 6 to 9 am; return 4 to 7 pm \_\_\_\_\_; other times \_\_\_\_\_
  - majority are short term residents (2 to 3 years) \_\_\_\_\_; long term residents (4 years +) \_\_\_\_\_
17. Does the owner/operator/superintendent provide each new resident with recycling information?  
Yes ☐ No ☐ Who provides it (owner/operator/superintendent)? \_\_\_\_\_
18. How often is information about recycling renewed? Every year ☐ Every 2-4 years ☐ Never ☐

*Please acquire copies of the communication materials?*

Please take pictures of:

- Front of building
- Lobby area
- Recycling bin/cart area
- Information signage
- Inside bins/carts



## Appendix 5-B – Pre-P&E Campaign Qualitative Research Questionnaire

### CIF/Region of Peel Multi-Residential Research Project

#### Direct Contact in Building

#### - Pre-Campaign Baseline - REVISED

NOTE TO READER: INTERVIEWER INSTRUCTIONS IN CAPITALS, DO NOT READ TO RESPONDENT

**Purpose:** The following brief questionnaires (with A/B parts) are meant to be used in person by the Region of Peel Multi-Residential (MR) team at the condo/apartment/Peel Living buildings that are included in the research study. Team members will approach building residents (*times and dates are specified in the schedule*) to ask them to participate in a brief survey about recycling.

This survey is being conducted prior to the delivery of a communication campaign that includes delivery of communication information and prompts (educational information card and magnet, reusable plastic recycling bag, reminder door hanger) and for half of the buildings, a lobby display. A similar survey will be conducted after the campaign materials have been delivered.

For people who recycle and are receptive but don't have time to answer this brief questionnaire, ask if they would be willing to

- a) go online to a few additional questions to help round out our survey; give them the card with the survey URL and incentive (key chain or pencil)
- b) if they prefer, they can provide their email so we can send them the URL for the ease of a simple click (use would be restricted to this Peel recycling project), or
- c) if they prefer, they can provide their phone number and we would contact them and conduct the questionnaire over the phone (would take no longer than 10 minutes); or they can call the number on the card.

For people who say they don't recycle, ask if they would answer a few quick questions. See B series of questions on page 6 below.

**TARGET – 20 completed surveys per study building**

**Questionnaire:**

**Hello, my name is \_\_\_\_\_.** I work with the Region of Peel. I'd like to talk with you today about recycling in your building. *(KEEP TALKING; DON'T PAUSE)*

**Do you recycle anything** – paper, cans, bottles? (LET THEM ANSWER...)

IF YES - CONTINUE WITH 1A BELOW

IF NO, CONTINUE WITH 1B SHORT QUESTIONNAIRE STARTING ON PAGE 6 BELOW

*IF THEY SAY THEY RECYCLE BUT DON'T HAVE TIME NOW, ASK IF THEY WOULD BE WILLING TO*

- A) GO ONLINE TO COMPLETE A SURVEY AT A TIME THAT IS CONVENIENT TO THEM...GIVE THEM THE CARD WITH THE RECYCLE RIGHT URL PRINTED ON IT. THANK THEM.*
- B) PROVIDE THEIR EMAIL SO WE CAN SEND THEM A DIRECT, EASY-TO-CLICK-ON LINK TO THE SURVEY. THANK THEM.*
- C) PROVIDE THEIR PHONE NUMBER SO WE CAN CONDUCT THE SURVEY OVER THE PHONE (IT WOULD TAKE ONLY ABOUT 10 MINUTES). THANK THEM.*

**IF THEY RECYCLE...ASK (record unaided answers in column 1A; record aided answers in 2A)**

1A. What are the kinds of items you usually recycle? DO NOT READ, LET THEM RECALL UNAIDED/CHECK IN 1A

2A. What about – AID THEM BY READING ITEMS NOT MENTIONED IN 1A. RECORD IN 2A.

	✓ 1A (UNAIDED)	✓ 2A (AIDED)
Aerosol cans		
Aluminum cans		
Aluminum foil, plates and trays		
Batteries		
Cardboard box		
Cardboard cartons		
Coffee Cups		
Egg cartons		
Foam cups, plates, packaging		
Glass bottles and jars		
Juice boxes		
Lightbulbs		

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Magazines		
Metal paint cans		
Milk cartons		
Newspapers		
Plastic bottles and jars		
Plastic food tubs and lids		
Plastic clamshells and containers		
Plant containers		
Printed papers		
Steel cans		

(Items person may mention that are **NOT** accepted...RECORD BY CHECKING OFF; DO NOT READ)

Textiles		Plastic toys	
Clothing		Cookware	
Other (RECORD ONE OR TWO)			

3A. How do you usually carry items from your unit/condo/apartment to the recycling area? DO NOT READ/CHECK ALL THEY SAY BELOW

- ☐ Plastic grocery bag GO TO 4A  
☐ Garbage bag GO TO 4A  
☐ Reusable bag GO TO 6A  
☐ Cardboard box GO TO 5A  
☐ Other \_\_\_\_\_ (RECORD, GO TO 5A)

4A. If you use a bag, are you most likely to: (READ LIST)

- ☐ Tie the bag closed  
☐ Leave the bag open and drop the whole thing into the bin/cart  
☐ Leave the bag open and shake it out into the bin/cart

5A. What do you usually do with the plastic bag/box afterwards? READ LIST/CHECK ALL THAT APPLY

- ☐ Leave it in the bin/cart  
☐ Put it in a garbage bin nearby  
☐ Keep it to throw away later  
☐ Keep it to reuse again  
☐ Other \_\_\_\_\_ (RECORD)

6A. Do you recall seeing any educational information/posters about recycling in your building?

- ☐ Yes - GO TO 7A    ☐ No - SKIP TO 8A

7A. What type of material? DO NOT READ/CHECK ALL THAT APPLY

- ☐ Poster in hall/elevator/common area/recycling room or area
- ☐ Information in mail box
- ☐ Waste Guide (*from the Region of Peel*)
- ☐ Information provided by the superintendent/building operator
- ☐ Other \_\_\_\_\_

8A. How often do you take recyclables to the recycling bin/cart? READ LIST/CHECK ONE ONLY

- ☐ Once a day
- ☐ Every other day
- ☐ Few times a week
- ☐ Once a week
- ☐ Less often
- ☐ Never

9A. Is there anything you would like to say about the recycling program in this building? DO NOT READ/CHECK ALL THAT APPLY

- ☐ Bins/carts should be emptied more often
- ☐ Bin/carts area should be cleaned up
- ☐ Should accept more materials
- ☐ Others put the wrong materials in the bins/carts
- ☐ Need more educational materials
- ☐ Other \_\_\_\_\_

10A. How long have you lived in this building? READ LIST/CHECK ONE ONLY

- ☐ Less than 1 year
- ☐ 1 - 3 years
- ☐ More than 4 years

Thank you for your time. Would you be willing to:

- A) *GO ONLINE TO ANSWER SOME ADDITIONAL QUESTIONS AT A TIME THAT IS CONVENIENT TO YOU? (PROVIDE CARD AND INCENTIVE. THANK THEM.)*
- B) *PROVIDE THEIR EMAIL SO WE CAN SEND THEM A DIRECT, EASY-TO-CLICK-ON LINK TO THE SURVEY. THANK THEM. CONFIRM IT TO ENSURE FOR ACCURACY.*
- C) *PROVIDE THEIR PHONE NUMBER SO WE CAN CONDUCT THE SURVEY OVER THE PHONE (IT WOULD TAKE ONLY ABOUT 10 MINUTES). RECORD TELEPHONE NO. AND MOST CONVENIENT TIME TO CALL.*

*THANK THEM AND GIVE THEM INCENTIVE.*

**ALTERNATIVE SURVEY: RESPONDENT DOES NOT RECYCLE....**

1B. If you don't recycle, can I ask you a few quick questions....why don't you recycle? DO NOT READ/CHECK ALL THAT APPLY

- ☐ Don't have time
- ☐ Lazy
- ☐ Don't believe in recycling/scam
- ☐ Don't know what to recycle
- ☐ Don't have enough materials to bother
- ☐ Too messy
- ☐ Attracts critters
- ☐ Don't know where to take materials
- ☐ Bins are always full
- ☐ Bins/carts inaccessible
- ☐ Timed access inconvenient
- ☐ Other \_\_\_\_\_

2B. If you (*ADDRESS WHAT WAS SAID*), would you reconsider and start recycling?  
☐ Yes      ☐ No    *If no, ask "Why is that? RECORD*

\_\_\_\_\_

3B. Have you ever seen messages about recycling in the building?  
☐ Yes – *Go to 4B*      ☐ No – *Go to 5B*

4B. What have you seen? DO NOT READ/CHECK ALL THAT APPLY

- ☐ Poster in hall/elevator/common area/recycling area
- ☐ Information in mail box
- ☐ Waste Guide (*from the Region of Peel*)
- ☐ Information provided by the superintendent/building operator
- ☐ Other \_\_\_\_\_

5B. How long have you lived in this building?

- ☐ Less than 1 year
- ☐ 1 - 3 years
- ☐ More than 4 years

Thank you for your time (*AND OFFER THEM THE INCENTIVE.*)

## Appendix 5-C – Post P&E Campaign Qualitative Research

### CIF/Region of Peel Multi-Residential Research Project

#### Direct Contact in Building

#### Post-Campaign Tracking Intercept Questionnaire

NOTE TO READER: INTERVIEWER INSTRUCTIONS IN CAPITALS, DO NOT READ TO RESPONDENT

**Purpose:** The following brief questionnaires (with A/B parts) are meant to be used in person by the Region of Peel Multi-Residential (MR) team at the condo/apartment/Peel Living buildings that are included in the research study. Team members will approach building residents (*times and dates are specified in the schedule*) to ask them to participate in a brief survey about recycling.

This survey is being conducted post delivery of a communication campaign that includes delivery of communication information and prompts (educational information card, reusable plastic recycling bag, reminder door hanger) and for a selection of the buildings, a lobby display. A similar survey was conducted before the campaign materials were delivered. This survey includes additional questions that ask about their recall of the campaign materials.

For people who recycle and are receptive but don't have time to answer this brief questionnaire, ask if they would be willing to

- d) go online to answer a few additional questions to help round out our survey; give them the card with the survey URL and incentive (key chain or pencil) (survey URL is the same as the pre-campaign questionnaire)
- e) if they prefer, they can provide their email so we can send them the URL for the ease of a simple click (use would be restricted to this Peel recycling project), or
- f) if they prefer, they can provide their phone number and we would contact them and conduct the questionnaire over the phone (would take no longer than 10 minutes); or they can call the number on the card.

**REMINDER:** For people who say they don't recycle, ask if they would answer a few quick questions. See Part B series of questions (page 8) below.

**TARGET – 20 completed surveys per study building**

**Questionnaire:**

**Hello, my name is** \_\_\_\_\_. I work with the Region of Peel. I'd like to talk with you today about recycling in your building. (*KEEP TALKING; DON'T PAUSE*)

**Do you recycle anything** – like paper, cans, bottles? (LET THEM ANSWER...)

IF YES - CONTINUE WITH 1A BELOW

IF NO, CONTINUE WITH **Part B - on page 8** BELOW.

*IF THEY SAY THEY RECYCLE AND ARE WILLING TO ANSWER A SURVEY, BUT DON'T HAVE TIME NOW, ASK IF THEY WOULD BE WILLING TO:*

- D) GO ONLINE TO COMPLETE A BRIEF SURVEY AT A TIME THAT IS CONVENIENT TO THEM...GIVE THEM THE CARD WITH THE RECYCLE RIGHT URL PRINTED ON IT. THANK THEM AND GIVE THEM THE INCENTIVE.*
- E) OR PROVIDE THEIR EMAIL SO WE CAN SEND THEM A DIRECT, EASY-TO-CLICK-ON LINK TO THE SURVEY. THANK THEM AND GIVE THEM THE INCENTIVE.*
- F) OR PROVIDE THEIR PHONE NUMBER SO WE CAN CONDUCT THE SURVEY OVER THE PHONE (IT WOULD TAKE ONLY ABOUT 10 MINUTES). THANK THEM AND GIVE THEM THE INCENTIVE*

**IF THEY RECYCLE.....**

**1A. Please tell me what items you usually recycle?** DO NOT READ/CHECK BELOW in 1A (unaided)

**2A. What about...** - (aided) FOR ALL ITEMS NOT MENTIONED 1A. CHECK YES/NO IN 2A

	✓ 1A	✓ 2A	
(THE YES/NO FOR 2a IS TO HELP INTERVIEWERS CHECK DOWN THE LIST MORE QUICKLY)		Yes	No
Aerosol cans			
Aluminum cans			
Aluminum foil, plates and trays			
Batteries			
Cardboard box			
Cardboard cartons			
Coffee Cups			
Egg cartons			
Foam cups, plates, packaging			
Glass bottles and jars			
Juice boxes			
Lightbulbs			
Magazines			
Metal paint cans			
Milk cartons			
Newspapers			
Plastic bottles and jars			
Plastic food tubs and lids			
Plastic clamshells and containers			
Plant containers			
Printed papers			
Steel cans			

(Items person may mention but are NOT accepted...RECORD BY CHECKING OFF; DO NOT READ)

Textiles		Plastic toys	
Clothing		Cookware	
Other (RECORD ONE OR TWO)			



**3A. How do you usually carry items from your unit/condo/apartment to the recycling area? DO NOT READ/CHECK BELOW**

- ☐ Plastic grocery bag GO TO 4A
- ☐ Garbage bag GO TO 4A
- ☐ Reusable bag GO TO 6A
- ☐ Cardboard box SKIP TO 5A
- ☐ Other \_\_\_\_\_ (RECORD)

**4A. (IF THEY USE A PLASTIC GROCERY/GARBAGE BAG...,) Are you most likely to: (READ LIST)**

- ☐ Tie the bag closed
- ☐ Leave the bag open and drop the whole thing into the bin/cart
- ☐ Leave the bag open and shake it out into the bin/cart

**5A. What do you usually do with the plastic bag/box afterwards? READ LIST/CHECK ALL THAT APPLY**

- ☐ Leave it in the bin/cart
- ☐ Put it in a garbage bin nearby
- ☐ Keep it to throw away later
- ☐ Keep it to reuse again
- ☐ Other \_\_\_\_\_ (RECORD)

**6A. Do you recall seeing any educational information/posters about recycling in your building?**

- ☐ Yes - **GO TO 7A**      ☐ No - **SKIP TO 7C**

**7A. What type of information/educational material have you seen? DO NOT READ/CHECK ALL THAT APPLY**

- ☐ Recycling/Reusable plastic bag **(IF NOT MENTIONED GO TO 7C)**
- ☐ Recycling Information card **(IF NOT MENTIONED GO TO 7C)**
- ☐ Magnet **(IF NOT MENTIONED GO TO 7C)**
- ☐ Recycling Reminder Card **(IF NOT MENTIONED GO TO 7C)**
- ☐ Information delivered to unit door **(ASK 7B)**
- ☐ Poster in hall/elevator/common area/recycling room or area
- ☐ Information in mail box
- ☐ Waste Guide (*from the Region of Peel*)
- ☐ Information provided by the superintendent/building operator
- ☐ Other \_\_\_\_\_

**7B. **(ONLY ASK IF INFORMATION DELIVERED TO DOOR IS ANSWER ABOVE)****

**Can you please tell me what was in that information package? DO NOT READ/CHECK ALL THAT**

**APPLY**

- ☐ Recycling/reusable plastic bag
- ☐ Recycling information card
- ☐ Magnet
- Other \_\_\_\_\_

**7C. Do you recall seeing any of these things....READ/CHECK ALL THAT APPLY (aided**

	Yes	No	Don't Know
Recycling/reusable plastic bag			
What to recycle information card			
Fridge Magnet			
Reminder door hanger card			
		IF NO, GO TO 7E	

**7D. Can you tell me what the heading name or title is of the recycling program information displayed on those materials?**

- ☐ Yes (RECORD IF THEY SAY WHAT THEY THINK IT IS \_\_\_\_\_) IF INCORRECT, GO TO 7F IN LOBBY DISPLAY BUILDINGS; OTHERWISE GO TO 8A.
- ☐ No GO TO 7E

**7E. IF NAME NOT SAID OR IS NOT CORRECT ABOVE, ASK.... ) Does the name, Recycle Right, seem familiar?**

- ☐ Yes
- ☐ No
- ☐ Don't remember

**7F. (ASK ONLY IN LOBBY DISPLAY BUILDINGS...) By any chance did you see a display in the lobby recently that provided information about recycling?**

- ☐ Yes GO TO 7G
- ☐ No GO TO 8A
- ☐ Don't remember GO TO 8A

**7G. Did you have an opportunity to talk to the people who were at the lobby display?**

- ☐ Yes GO TO 7H
- ☐ No GO TO 8A

**7H. While you were at the lobby display what, if anything, did you learn about?**

- ☐ Nothing
- Learned about \_\_\_\_\_

**8A. How often do you take recyclables to the recycling bin/cart? READ LIST/CHECK ONE ONLY**

- ☐ Once a day
- ☐ Every other day
- ☐ Few times a week
- ☐ Once a week
- ☐ Less often
- ☐ Never

Other \_\_\_\_\_

**8B. Have you started using the reusable plastic recycling bag to transport recyclables to the bins?**

☐ Yes **SKIP TO 8D.**

☐ No **GO TO 8C.**

**8C. Can you tell me why you are not using the reusable recycling bag?**

☐ Too nice to get dirty

☐ Easier to use grocery bags/leave them in bins

☐ Lazy

☐ Don't have enough materials to bother

☐ Too messy

☐ Attracts critters

☐ Don't know where to take materials

☐ Bins are always full

☐ Bins/carts inaccessible

☐ Timed access inconvenient

☐ Other \_\_\_\_\_

**8D. Did you find the recycling information on the plastic reusable bag and information cards...**

READ/CHECK ALL THAT APPLY

	Yes	No	Don't Know
Easy to understand			
Helpful and educational			
Reduces the number of grocery bags you use			

**8E. Do you think the recycling information materials are helping you to recycle....?**

☐ About the same

☐ More

☐ Don't know

**9A. Is there anything you would like to say about the recycling program in this building? DO NOT**

READ/CHECK ALL THAT APPLY

☐ Bins/carts should be emptied more often

☐ Bin/carts area should be cleaned up

☐ Should accept more materials

☐ Others put the wrong materials in the bins/carts

☐ Need more educational materials

☐ Other \_\_\_\_\_ (WRITE ON BACK OF SHEET IF NEED MORE

ROOM)

**10A. How long have you lived in this building? READ LIST/CHECK ONE ONLY**

- ☐ Less than 1 year  
☐ 1 - 3 years  
☐ More than 4 years

**11. Can you please tell me how many adults and children live in your household?**

\_\_\_\_ adults    \_\_\_\_ children

**12. (RECORD GENDER -- DO NOT SAY/ASK)    F    M**

Thank you for your time. (IF APPROPRIATE, ASK....) would you be willing to:

- D) GO ONLINE TO ANSWER SOME ADDITIONAL QUESTIONS AT A TIME THAT IS CONVENIENT TO YOU? (PROVIDE CARD AND INCENTIVE. THANK THEM.)*
- E) PROVIDE THEIR EMAIL SO WE CAN SEND THEM A DIRECT, EASY-TO-CLICK-ON LINK TO THE SURVEY. THANK THEM. CONFIRM IT TO ENSURE FOR ACCURACY.*
- F) PROVIDE THEIR PHONE NUMBER SO WE CAN CONDUCT THE SURVEY OVER THE PHONE (IT WOULD TAKE ONLY ABOUT 10 MINUTES). RECORD TELEPHONE NO. AND MOST CONVENIENT TIME TO CALL.*

*THANK THEM AND GIVE THEM INCENTIVE.*

**Part B – FOR THOSE WHO SAID THEY DO NOT RECYCLE....**

**1. (IF THEY DON'T RECYCLE, ASK...) Would it be okay if I ask you a few quick questions that will really help us with our survey....could you please tell me why don't you recycle? DO NOT READ/CHECK**

**ALL THAT APPLY**

- ☐ Don't have time
- ☐ Lazy
- ☐ Don't believe in recycling/scam
- ☐ Don't know what to recycle
- ☐ Don't have enough materials to bother
- ☐ Too messy
- ☐ Attracts critters
- ☐ Don't know where to take materials
- ☐ Bins are always full
- ☐ Bins/carts inaccessible
- ☐ Timed access inconvenient
- ☐ Other \_\_\_\_\_

**2. If you (ADDRESS WHAT WAS SAID), would you reconsider and start recycling?**

- ☐ Yes    ☐ No    *If no, ask "Why is that? RECORD*
- 

**3. Have you ever seen messages about recycling in the building?**

- ☐ Yes – **Go to 4A**    ☐ No – **Go to 4C**

**4A. Can you please tell me what have you seen? DO NOT READ/CHECK ALL THAT APPLY**

- ☐ Recycling/Reusable plastic bag **(IF NOT MENTIONED GO TO 4C)**
- ☐ Information card (Recycle Right) **(IF NOT MENTIONED GO TO 4C)**
- ☐ Magnet **(IF NOT MENTIONED GO TO 4C)**
- ☐ Recycle Right Reminder Card **(IF NOT MENTIONED GO TO 4C)**
- ☐ Information delivered to unit door **(ASK 4B)**
- ☐ Poster in hall/elevator/common area/recycling room or area
- ☐ Information in mail box
- ☐ Waste Guide *(from the Region of Peel)*
- ☐ Information provided by the superintendent/building operator
- ☐ Other \_\_\_\_\_

**4B. **(ONLY ASK IF INFORMATION DELIVERED TO DOOR IS ANSWER ABOVE)****

**Can you please tell me what was in that information package? DO NOT READ/CHECK ALL THAT**

**APPLY**

- ☐ Recycling/Reusable plastic bag
  - ☐ Information card (Recycle Right)
  - ☐ Magnet
  - ☐ Other \_\_\_\_\_
-

**4C. Can you tell me if you recall seeing any of these things....READ/CHECK ALL THAT APPLY**

	Yes	No	Don't Know
Recycling/reusable plastic bag			
What to recycle information card			
Fridge Magnet			
Reminder door hanger card			

**4D. (ASK ONLY IN LOBBY DISPLAY BUILDINGS...) By any chance did you see a display in the lobby recently that provided information about recycling?**

- ☐ Yes **GO TO 4E**  
☐ No **GO TO 5**  
☐ Don't remember **GO TO 5**

**4E. Did you have an opportunity to talk to the people who were at the lobby display?**

- ☐ Yes **GO TO 4F**  
☐ No **GO TO 5**

**4F. While you were at the lobby display what, if anything, did you learn about?**

- ☐ Nothing  
 Learned about \_\_\_\_\_

**5. How long have you lived in this building?**

- ☐ Less than 1 year  
☐ 1 - 3 years  
☐ More than 4 years

**6. Can you please tell me how many adults and children live in your household?**

\_\_\_\_ adults \_\_\_\_ children

**7. (RECORD GENDER -- DO NOT SAY/ASK) F M**

Thank you for your time (AND OFFER THEM THE INCENTIVE.)